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# The Agricultural Situation in Africa and West Asia

Review of 1975 and Outlook for 1976



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**ABSTRACT:** Africa's reduction of agricultural output in 1975 was mainly in nonfood crops. Total agricultural production was down slightly in 1975, but food production held at the 1974 level. Per capita food production dropped about 2 percent. West Asia's total agricultural production gained 6 percent. But largely because of good grain crops, food production gained 8.5 percent. Per capita food production rose by 6 percent.

**KEYWORDS:** Africa, agricultural production, agricultural trade, Middle East, West Asia.

## FOREWORD

This is one of seven regional reports supplementing the *World Agricultural Situation* which is published three times a year. The most recent issue, WAS 9, was released in December 1975. Other regional reports cover Western Europe, the Soviet Union, the Western Hemisphere, the Far East and Oceania, Eastern Europe, and Communist Asia.

Highlights of the 1975 agricultural year are provided for 23 countries in Africa and 15 in West Asia, including some not discussed and excluding others which were discussed in *The Agricultural Situation in Africa and West Asia: Review of 1974 and Outlook for 1975*, FAER-108, issued in May 1975. Tabular data for some countries omitted from the text discussion are included in the appendix.

Michael E. Kurtzig, John B. Parker, Melvenia L. Peed, Snider W. Skinner, Herbert H. Steiner, H. Charles Treagle, and Lawrence A. Witucki helped prepare this report. It was coordinated by Robert E. Marx. For some countries, the agricultural situation reports from the U.S. Agricultural Attaches abroad were drawn upon extensively.



Robert E. Marx, Project Leader  
Africa and Middle East  
Developing Countries Program Area  
Foreign Demand and Competition Division  
Economic Research Service

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# THE AGRICULTURAL SITUATION IN AFRICA AND WEST ASIA

## Review of 1975 and Outlook for 1976

### SUMMARY

Agricultural production in Africa for 1975 fell slightly short of the record established in 1974, and it was considerably short of the long-term average annual increase of 2.47 percent. The index of total agricultural output moved from 128 in 1974 to 127 in 1975 (1961-65=100).<sup>1</sup> Food production on the continent held at an index level of 129. Food outturn, on a per capita basis, dropped 2 percent in 1975 to 95 percent of the base period. It did not increase so fast as population.

Of the three largest agricultural countries of Africa, only the Republic of South Africa showed a decrease in production in 1975. Smaller corn and sorghum crops were largely responsible.

In the other two countries, Nigeria and Egypt, production went up. In Nigeria the rise was general among commodities. In Egypt the rise in production was accomplished despite a 10 percent reduction in cotton, the country's leading crop. Cotton outturn was approximately 400,000 tons, the smallest harvest since 1961.<sup>2</sup>

Angola and Morocco joined South Africa as the countries having the largest declines in production in 1975. Angola's loss was mainly the result of political unrest and civil war. Less favorable weather was the instigator of losses in Morocco.

The three outstanding export crops of Africa are coffee, cotton, and cocoa. The African coffee crop for 1975 was down by 11 or 12 percent from the 1974 production. Cotton production was also down in 1975. The reduction amounted to approximately 10 percent. It occurred largely in Egypt, Sudan, and Tanzania. In these countries there were sig-

nificant shifts of cotton land into grain production. Cocoa bean output was about 6 percent greater in 1975 than in 1974. The 1975 crop was the largest since the record crop of 1971.

In West Asia, total agricultural output in 1975 improved by 6 percent over that of 1974 to an index of 149 (1961-65=100).<sup>3</sup> This exceeded the long term average annual increase of 3.19 percent. Per capita food production gained 6 percent in 1975 to 106 percent of the base period.

Production in Turkey and Iran, the 2 largest agricultural countries of West Asia, increased substantially. Turkey increased by 8 percent and Iran by 14 percent. But dry weather played havoc with Jordan's production, and Cyprus, Iraq, Israel, and Lebanon had reduced production.

Turkey's outstanding year was featured by a record-breaking wheat crop of 11.5 million tons, a record 4.5 million-ton barley crop, and a new high production of sugarbeets. Iran also harvested a record-breaking wheat crop, 4.9 million tons.

The big crops of West Asia are wheat and cotton. Because of good production in Turkey and Iran, 1975 wheat production in the region surpassed by more than 500,000 tons the previous record crop of 18.67 million in 1972. The main effect of this huge crop has been to reduce demand for imports of wheat; Turkey imported no wheat in the last half of 1975 and likely will need no imports in 1976. Iran will import grain, since domestic demand exceeds even the record-breaking production. Cotton production was down in 1975 in West Asia by about 20 percent. Largest loss was in Turkey where some cotton land was shifted to grain production. (*Robert E. Marx*)

<sup>1</sup>Based on production of 32 countries for which indices have been prepared. See table 6 for indices of each country.

<sup>2</sup>Metric tons and U.S. dollars are used in the report; exceptions are stated specifically.

<sup>3</sup>Based on production of 8 countries for which indices have been prepared. See table 6 for indices of each country.

## CORN IN SOUTH AFRICA

Many countries in Africa produce large quantities of grain. But the most significant African competition with U.S. grain in the world-wide export market comes from corn produced in the Republic of South Africa.

### Production

From 1969 through 1974, South Africa's corn production increased an average of 7.2 percent per year. Production reached a record 11.1 million tons in 1974. For 1975, production dropped to 9.1 million tons. The early outlook for 1976 output is 7.8 million tons.

In recent years about 95 percent of corn production has been in white areas. In 1970 corn planted in white areas was estimated at 4.4 million hectares, nearly 38 percent of the total cultivated area of 11.6 million hectares. From 1969 through 1974, area planted to corn decreased slightly—about 0.9 percent per year. Yields increased by an average of 7 percent per year, averaging 1.656 tons per hectare (26.4 bushels per acre). In 1974 when good weather prevailed in almost all important corn areas, a record yield of 2.38 tons per hectare (37.9 bushels per acre) was reached. About 52 percent of all fertilizer nutrients used in South Africa in 1974 were used for the corn crop. The main limiting factor in South Africa's corn production is soil moisture. In much of the Maize Triangle, the Republic's principal corn-producing region, average rainfall varies from only 16 to 24 inches a year.

### Utilization

The country's domestic corn consumption increased to 5.8 million tons during the 1974/75 marketing year (May-April). From 1969/70 to 1974/75, total consumption increased at 2.8 percent per year. By comparison, wheat consumption increased to 1.6 million tons, and it has been increasing at 4.9 percent per year over the same period. Wheat consumption per capita is about 57 percent of that in the United States.

Feed grain consumption per capita in South Africa is estimated at about 37 percent of that in the United States. Consumption of corn by South Africa's animals has been increasing at 5.7 percent per year. In 1964/65 animal consumption of corn was 33.5 percent of total domestic consumption, and 63.7 percent was consumed directly by humans. But in 1974/75, animals consumed 47.4 percent of total domestic consumption, compared to 49.8 percent directly used for humans. This trend is expected to continue. South Africa is not self-suf-

ficient in meat, and increasing local production through increased feeding is likely to be profitable.

### Corn for Feeding Livestock

The "Maize News" of South Africa listed consumption of corn in the livestock sector in 1970/71 by enterprise. Poultry consumed 39 percent of the corn fed; dairy cattle, 32 percent; pigs, 18 percent; beef cattle, 6 percent; and sheep and others, 5 percent.

Total use of corn for animal consumption is estimated at 2.73 million tons during 1974/75. Total production of feed mixtures in 1974 was 1.89 million tons. It has been increasing at a rate of 16.2 percent a year since 1969.

The Department of Agricultural Economics and Marketing listed the sales by feed manufactures in 1973 according to enterprise. Poultry used 54.6 percent of feed sold; dairy cattle, 19.2 percent; pigs, 10.4 percent; beef cattle, 6.9 percent; sheep, 6.5 percent; and horses and others, 2.4 percent.

Overall livestock production has averaged only a 1 percent per year increase from 1970 through 1975. Combined production of all red meat from grazing lands, such as beef, veal, mutton, and goat meat, is not increasing. But total beef production is increasing.

Farmers seem to favor raising cattle. Total cattle numbers in white areas have shown an upward trend since 1968. From 1970 through 1975 they increased by an average of 2.5 percent per year. A record number of 8.8 million head are estimated for 1975. (But sheep numbers have decreased slightly since 1970.)

The Agricultural Attache reports that "...after the good summer rains of the past two seasons, the coverage of the natural grazing, with the exception of only a few areas, is at present better than it has been for many years." A dry period could force destocking, but this might be moderated by increased feeding. It is significant to note that land prices in cattle grazing areas have been increasing at a rate of 10.8 percent per year from 1969 through 1974.

It is likely that the use of corn in the livestock sector will continue to increase. Livestock product prices have generally risen sharply. In 1975 about 20 percent of the beef consumed in South Africa was imported from neighboring countries. Increased feeding may become the preferred alternative to importing.

Production of poultry meat has been increasing at a rate of 22 percent per year from 1970 through 1975. Poultry meat was only 14 percent as large as



red meat production during the 1969-72 period, but it rose to 25.4 percent during 1972-75. Egg production is increasing by 7.2 percent per year, and pig meat by 4 percent.

Milk production in the past 5 years decreased about 2 percent each year. Increased feeding may be required to stabilize production.

**Meat consumption.**—Total per capita consumption of meat in South Africa is estimated at about 38 percent of the U.S. level. Per capita consumption of poultry is about 20 percent of the U.S. level and pork only 11 percent. Per capita consumption of meat has been trending downward. In the early sixties it was 35 kilograms per capita. In 1974/75, the estimate is at 30.1 kilograms per capita. The trend for dairy products is also the same.

### Corn for Humans

Since 1970 corn for direct human consumption has increased at an average of 0.8 percent per year. Corn is playing a smaller direct role in the average diet.

Direct per capita human consumption of corn and corn products among the Bantu people is much greater than the South African average. Also, consumption by rural Bantu is much greater than that of the urban Bantu. According to a 1970/71 survey reported in the "Maize News," per capita spending on corn and corn products by Bantu may exceed that of whites by 5 to 6 times. Direct consumption decreases as income increases.

Direct human consumption of corn will be affected, if in the future the relative cost of food increases. This is another factor in the future level of corn exports from the country.

### Corn Exports

In the corn marketing year of 1974/75, exports of corn and corn products, including deliveries to Botswana, Lesotho, Swaziland, and South-West Africa (Namibia), totaled 3.7 million tons, second only to the record of 3.9 million tons set during 1972/73. This places South Africa as one of the world's leading exporters of corn, after the United States and Argentina. During the last 6 years, the proportion exported has increased from one-fourth to nearly one-third of production.

Leading buyers of South African corn were Japan, United Kingdom, Taiwan, Spain, Italy, and Venezuela. But many countries purchase small amounts.

Total storage space available for grain in the country will hold about 10 million tons. This space is controlled by agents of the Maize Board, and it includes storage space for corn by commercial processors.

Southern Africa had generally favorable weather in 1974/75. Corn exports from the Republic of South Africa to nearby Lesotho, Botswana, Swaziland, and South-West Africa (Namibia) were low, totaling only 60,149 tons. In contrast, the exports totaled about 202,000 tons in 1970/71.

Corn sold on tender for export realized record prices during 1974/75. White corn averaged R91.20 per ton (1 Rand equaled \$1.40) and yellow corn R92.19. These are prices "Free Alongside Elevator."

The outlook for 1976/77 is for exports to be down sharply due to excessive rain early in 1976. (Lawrence A. Witucki)

## RICE IN THE MIDDLE EAST

Imports of milled rice by Mideast countries reached a record 1.5 million tons in 1975, up from 1.15 million tons during 1974 and an average of 505,000 tons during 1967-72 (table 1). The value of Mideast rice imports in 1975 exceeded \$650 million, up from about \$234 million in 1973. The quantity might reach 1.7 million tons in 1976, but the value will be less because of much lower prices. U.S. rice sales to Arab countries continued upward early in 1976; shipments to Iran fell sharply below the fiscal 1975 level. The United States supplied almost half of the rice imported by Mideast markets in 1975. Demand for imported rice was rising before the dramatic hike in petroleum prices in 1973, and the tremendous gains in petroleum income greatly accelerated the growth in rice consumption. So,

there is a correlation between the gross national product (GNP) per capita during 1975 and the per capita rice consumption.

The highest per capita rice consumption in the Mideast is in the United Arab Emirates (UAE). Rice consumption exceeded 100 kilograms per capita in 1975, up about 20 percent above the 1970-72 level. Per capita GNP for UAE's 400,000 residents in 1975 was about \$20,000, but income was very unevenly distributed. However, the wealthy original inhabitants and many low-paid Asian immigrants share one thing in common—a high per capita use of rice. Following UAE, per capita rice consumption in Kuwait and Qatar was about 70 kilograms. It was 39 kilograms in Iran, Iraq, and Egypt during 1975.

Table 1--Imports of rice by Middle East countries

Country	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976 forecast
	1,000 metric tons										
Saudi Arabia.....	113	151	124	151	202	220	167	132	210	250	325
Kuwait.....	47	19	42	27	38	55	54	28	42	58	70
Bahrain.....	18	9	19	8	26	26	27	29	24	29	30
Qatar.....	4	4	3	3	4	11	7	6	9	14	15
United Arab Emirates.....	25	27	45	34	44	48	64	71	85	105	140
Oman.....	4	4	4	6	8	8	7	9	20	29	50
PDR Yemen.....	28	28	28	60	46	22	25	30	31	33	35
Yemen Arab Republic.....	7	8	4	4	5	5	9	12	25	45	110
Arabian Peninsula.....	246	250	269	293	373	395	360	317	446	563	775
Iraq.....	29	10	24	2	6	60	92	145	190	366	300
Syria.....	1	1	1	1	2	97	33	16	260	295	385
Lebanon.....	32	36	44	30	40	39	56	58	88	81	100
Israel.....	22	26	18	29	25	25	26	21	30	21	20
Turkey.....	36	21	28	30	36	39	35	34	36	39	38
Jordan.....	9	--	13	13	2	2	63	63	43	60	55
Libya.....	25	23	17	19	15	24	25	16	23	30	32
Sudan.....	17	16	12	23	19	23	16	17	22	24	25
Total Mideast.....	5	7	7	10	11	9	9	11	10	11	10
	434	390	433	450	529	723	715	638	1,148	1,490	1,740
	Million dollars										
Saudi Arabia.....	17.2	24.9	29.8	32.8	37.0	38.5	33.0	28.0	124.0	130.0	110.5
Kuwait.....	9.3	4.0	10.8	6.8	8.4	9.7	21.2	10.6	41.0	38.0	25.2
Bahrain.....	4.4	2.0	4.5	1.9	3.1	5.8	4.8	10.4	14.0	12.0	10.5
Qatar.....	.6	.7	.6	.7	.8	2.4	1.3	2.0	5.1	5.8	4.7
United Arab Emirates.....	4.7	5.5	10.6	7.5	7.7	9.4	13.0	17.8	43.0	51.0	42.0
Oman.....	.4	.7	.6	.9	1.1	1.2	.9	2.9	4.8	4.1	14.0
PDR Yemen.....	4.2	4.6	5.1	8.8	7.1	2.8	4.0	6.5	14.5	14.0	7.0
Yemen Arab Republic.....	.8	1.4	.6	.7	.8	.8	.8	2.6	3.6	8.0	22.0
Arabian Peninsula.....	41.6	43.9	62.6	60.2	65.9	70.5	70.0	80.8	250.0	262.9	235.9
Iraq.....	4.0	1.7	3.7	.3	1.1	11.6	20.6	58.0	104.7	165.8	84.0
Syria.....	.2	.2	.2	.1	.3	15.6	7.0	6.7	110.0	140.0	116.0
Lebanon.....	4.5	5.5	6.9	4.7	5.2	6.2	6.7	16.0	26.0	34.0	26.0
Israel.....	3.1	4.2	3.0	4.7	3.1	3.0	3.6	6.7	12.5	8.0	5.4
Turkey.....	6.0	3.7	5.6	5.4	5.3	5.8	6.2	10.4	20.0	17.0	10.6
Jordan.....	.1	1.6	2.5	2.6	2.3	.4	.5	22.6	25.0	18.0	13.2
Libya.....	4.1	3.8	3.2	3.5	2.2	3.6	3.6	3.9	6.0	9.2	7.7
Libya.....	2.6	2.8	2.2	3.8	2.6	2.8	1.9	3.5	7.1	7.3	6.8
Sudan.....	.8	1.4	1.4	2.0	1.9	1.4	1.5	1.9	3.5	3.8	2.2
Total Mideast.....	67.0	68.8	91.3	87.3	90.0	120.9	121.5	210.5	564.8	666.0	507.8

Source: 1974 FAO Trade Yearbook, FAO Bimonthly Rice Intelligence, and ERS estimates.



Per capita GNP in Iran was about \$1,500 in 1975, and it was \$294 in Egypt. Since prices were lower and the supply was completely domestic, Egypt's per capita rice consumption equalled its two oil-rich neighbors. In Yemen Arab Republic, per capita rice use was about 17 kilograms in 1975, and income was a third of Egypt's level.

During the late seventies, four countries are likely to be in the race for leading importer in the Mideast—Iran, Iraq, Saudi Arabia, and Egypt. Imports by each of these countries could range between 300,000 and 500,000 tons annually during 1976-78. Annual rice imports by Syria, UAE, and Yemen Arab Republic each are likely to range between 80,000 and 150,000 tons annually during the next three years.

Since the shortage of 1973, rice imports by Arabian Peninsula countries have moved steadily upward. Imports by Kuwait in 1976 are likely to be about 2.5 times the 1973 level of 28,000 tons.

Saudi rice imports reached 250,000 tons in 1975, up from 131,500 tons in 1973. A new mill to polish 80,000 tons of brown rice in Jidda will push rice imports up to about 325,000 tons in 1976. Greater income distribution and rising government payments to the poorer half of the Saudi population will boost rice demand. Since less than 2 percent of Saudi Arabia's rice supply is produced locally, all the 1976 growth in demand must be satisfied from imports.

Saudi Arabia's great wealth from petroleum is having some spillover into neighboring Yemen Arab Republic. About a million Yemeni laborers now work in Saudi Arabia. The income and foreign exchange they earn is needed, since the 6 million people in Yemen live in one of the world's 25 least developed countries.

Although reduced rice purchases by Iran have set back U.S. rice sales to the Mideast for the first 9 months of fiscal 1976, Egypt's plans to become a large rice importer could cause a marked change. Also, sales to Saudi Arabia, Yemen, and Oman are trending upward while shipments to Iraq remain near the fiscal 1975 level. Officials at the Ministry of Supply in Cairo would like to receive U.S. rice under several financial arrangements. Imports, even through long-term credit arrangements at current low prices, would provide a way to raise retail rice prices in Egypt. Rice is currently sold at fixed retail prices of about 7 cents per pound in Egyptian cities. When U.S. sales of large quantities of rice were made to Bangladesh for 8.5 cents per pound (\$187 per ton), Egyptian officials became interested in purchasing the 20 percent broken that were available in Gulf ports.

Rice has been available in most larger Egyptian grocery stores in 1976, but sales apparently have been greater than consumption. Housewives stored

rice for summer months when it may not be available in shops. At that time, imported rice likely will enter the market, much the same as canned goods have already. However, the financing may be from private sources. The loss by the Government on sales of imported rice at current fixed prices would be considerable.

The Ministry of Supply loses more than \$1 billion annually on its distribution of food. Previous rules prohibiting or restricting private imports only bolstered the demand to be supplied by the Government. Because of limited foreign exchange, food imports remained below demand. Egypt's 1975 rice (paddy) harvest reached 2.42 million tons. From this harvest last October some exports occurred in early 1976, including shipments of 30,000 tons to the USSR.

Booming domestic demand for rice and a decline in per capita output caused Egyptian rice exports to fall from a peak of 772,000 tons in 1969 (almost half of total output) to only 90,000 tons in 1975 (only 6 percent of the supply). Total exports for 1976 are likely to stop at 80,000 tons because the expected switch to imports begins this summer.

Egypt needs an extra 50,000 tons of rice each year just to keep up with growing demand. Stocks held by the Ministry of Supply and private merchants selling rice in 5 kilo plastic bags at fixed prices generally fall below 200,000 tons late in summer.

In addition to plans to purchase rice for distribution by the Ministry of Supply, private importers can now import and distribute rice in Egypt. Private imports for hotels, duty-free zones, restaurants, and owners of large new warehouses could become substantial in the future. Storage of 200,000 tons of rice in new warehouses along the Suez Canal as part of an international grain storage arrangement has been mentioned. Through such a plan, foreign exchange for this rice would come from oil-rich countries of the Arabian Peninsula. During times of shortage, rice could be rushed from these warehouses to ports of the Arabian Peninsula or East Africa. World Food Programs, for distributing food to Yemen, Jordan, Lebanon, or South Asia, could also dip into the international rice stocks stored in Egypt.

Rice import plans and policies of Mideast nations are constantly changing. During the decade before 1973, the leading rice importer in the Mideast was Saudi Arabia. With large imports from Asia and Latin America, Iraq surpassed Saudi Arabia in 1974, and Iran began to make larger purchases in 1975, mostly of U.S. rice since its petroleum revenues quadrupled. Supplies of rice available for export by Asian suppliers were short in 1973. Government officials of most Mideast countries decided to include imported rice as one of the favored



items for buying with the rising petroleum income. When they made these decisions, they often found that only the United States had large quantities of high quality rice available for prompt delivery. From mid-1973 until early 1975, ships carrying American rice could not arrive at Mideast ports fast enough to suit trade officials, since many consumers were waiting to buy it at subsidized prices. After Iran and Iraq purchased large amounts in 1975, rice prices remained at high levels until excellent rainfall in Asia assured prospects for a bumper crop. New rice purchases in the world market by Mideast buyers dwindled late in 1975 because of inadequate port and distribution facilities in the countries where imports were up sharply and because of declining prices. A widespread wait-and-see attitude prevailed early in 1976 as rice export prices in Asia and the United States drifted even lower.

The demand for imported rice is strong in the Mideast, but the share of this demand coming from Iran and Iraq has fallen sharply. In fiscal 1975 U.S. rice exports to Mideast markets reached 711,000 tons, and 65 percent of the shipments went to Iran. Port congestion, a clogged land distribution system, and reports of a better crop caused Iran to drastically reduce purchases of U.S. rice late in 1975. Yet, shipments and sales to Iran during the first 9 months of fiscal 1976 exceeded 143,000 tons.

In contrast, shipments to Iraq fell more drastically—from 110,000 tons during fiscal 1975 to 86,000 tons during the first 9 months of fiscal 1976. Iraq purchased about 100,000 tons of rice from Pakistan late in 1975 for about \$405 per ton. Iraq's agents for previous purchases of U.S. rice were located in Beirut. The Lebanese civil strife has completely disrupted Baghdad's previous method of purchasing U.S. rice. In the winter of 1975/76, adequate supplies of U.S. and Pakistani rice helped consumers in Iraq's major cities cope with severe shortages of potatoes, vegetables, meat, and at various times, bread.

Iraq's rice production has remained below 120,000 tons during the last 2 years. A rebound in Iraq's rice output was prevented by inadequate supplies of irrigation water, salinity, and greater profits and marketing freedom for farmers to grow other crops. Iraq hopes for a revival in rice production in 1976 partly because of the immigration of several thousand Egyptian farmers.

#### **Rice Production Rebound in 1975**

Egypt accounted for over 60 percent of Mideast paddy rice output, estimated at about 4 million tons for the area in 1975. Three other important producers are Iran, Turkey, and Iraq.

Rice production in these four countries increased by more than a fourth between the early sixties and 1970 because of expanded use of irrigation, improved plant varieties, and greater use of fertil-

izer. But the growth has not extended into this decade, largely because of competition from other crops and difficulty in developing new areas for rice cultivation.

Egypt's paddy rice production rebounded from a low of 2.27 million tons in 1974 to over 2.4 million tons in 1975. Yet, production in 1975 was still about 10 percent below the peak recorded in 1970. Increases in Egyptian rice output will be difficult to achieve. Expansion of rice areas in the northern area of the Nile Delta are not likely. Fixed procurement prices, rising input costs, and greater profits from vegetables caused the area in rice to decline from 1970 to 1974, and only a slight gain occurred in 1975.

Greater use of high yielding varieties (HYV) and fertilizer enabled Iran to improve rice yield in 1975 near the Caspian Sea. Quick use of pesticides prevented losses from attacks by rice stalk worms in July. Turkey and Iraq failed to have a rebound in rice output in 1975.

#### **Competition Intensifies**

U.S. rice exports to Mideast markets are more related to competition from Asian exporters than to gains in Mideast production. Greater competition for Mideast rice markets has occurred as prices have declined. Sales of three big exporters—United States, Pakistan, and Thailand—have remained strong, and sales of such smaller exporters as India, People's Republic of China (PRC), North Korea, Peru, Venezuela, Italy, and Burma have retreated. Egypt's dwindling sales to Syria, Jordan, and Lebanon opened up new opportunities for U.S. sales through concessional programs. The United States provided about 42 percent of Mideast rice imports in 1975. Pakistan and Thailand each supplied about 12 percent.

U.S. rice exports to Mideast markets increased from 107,000 tons (valued at \$50 million) in 1973 to 353,000 tons (\$195 million) in 1974. Exports to Iran increased from 190,000 tons in 1974 to 366,000 tons (\$166 million) in 1975. Larger U.S. rice shipments are expected in late 1976 although total deliveries this year may fall below the 1975 level. Deliveries to Iraq zoomed from 31,000 tons in 1974 to a record 150,000 tons (\$64 million) in 1975. Demand for U.S. rice is rising in Iraq, but future purchasing plans by government trading agencies in Baghdad are not known. Anticipation of new rice distribution arrangements caused U.S. rice exports to Saudi Arabia to decline from 90,000 tons in 1974 (\$55 million) to 80,000 tons (\$37 million) in 1975. U.S. rice exports to Saudi Arabia might double in 1976 because of the new polishing mill in Jidda operated by a U.S. firm. U.S. rice exports to Syria in 1976 are likely to be about double the 22,000 tons delivered in 1975. U.S. exports to Oman, Yemen Arab Republic, and UAE should also double in 1976. *(John B. Parker)*



# AFRICA

## ALGERIA

The slump in oil revenues in 1975 slowed down the extremely rapid growth rate of 1974. The growth of gross domestic product is dominated by the petroleum sector, but even in such other sectors as construction, mining, transport, and commerce, the real growth was 8 percent in 1974. To maintain the ambitious investment program of the 1974-77 plan, Algeria had to seek more financing from abroad in the face of reduced petroleum revenues. The cost of capital goods and food that Algeria imports has risen. Development spending will remain heavy, but the money will not be sufficient to complete so many projects as originally planned.

### Agricultural Production

Dry weather in the winter of 1974/75 reduced crop production; the index of agricultural production in 1975 was only 93 (1961-65=100). This was the third year in a row that agricultural production was less than the 1961-65 base. Unfavorable weather was not the only reason for the poor results. The State farms have not performed well. The State sector includes about 2.3 million hectares of the best land. In 1973 the operating costs of the sector were \$325 million. Total sales were only \$250 million. To remedy this situation, the Government of Algeria in the spring of 1975 gave the State farms more autonomy. They can now sell their produce to anyone, but they will be responsible for operational losses. Before this, the Government subsidized any deficits.

### The Agrarian Revolution

The 587,000 private farms covering 5 to 8 million hectares of mostly poorer-quality land generally provide little more than minimum subsistence for 1.5 million workers and their families. One problem was the small size of these farms; 23 percent covered less than 1 hectare, and more than half were 5 hectares or less in size. But 16,530 medium and large farms used modern agricultural practices.

The agrarian revolution was started in 1972 to restructure the entire private sector by combining the small uneconomical farms into cooperatives and by taking land from absentee and other large landlords and distributing it to "those who work it."

The agrarian revolution is still in progress. In the first stage which ended in 1973, 700,000 hectares of public land were distributed to 54,000 beneficiaries organized into 3,000 small production cooperatives. These, in turn, are served by 420 ser-

vice cooperatives that supply modern means of production, storage, marketing, and credit, prepare cropping plans, and do extension work. Socialist villages are being constructed to provide urban amenities to the farmers and to slow the exodus from the rural areas. A socialist village generally consists of modern houses with running water and electricity, a business center, a dispensary, a school, a mosque, a sports stadium, an auditorium, and a post office. Nevertheless, many peasants have reportedly left the newly-established cooperatives. The last phase of the Agrarian Revolution began in 1975 to reorganize the ownership of the sheep grazing and alfa grass regions of the steppes.

### Foreign Trade

Early in 1976 the European Community (EC) signed its first accord with Algeria. Algerian industrial products will be given duty-free entry into the EC. Ceilings will be set only for refined petroleum products and cork until December 31, 1979. Table wines will benefit from an 80 percent tariff reduction so long as they are not blended and are not sold below minimum floor prices. Bottled quality wines will be exempt from duties within quotas ranging from 250,000 hectoliters the first year to 450,000 the fifth year. Up to 500,000 hectoliters of wine for distillation will receive an 80 percent tariff reduction. The import duty on olive oil will be reduced by 0.5 units of account (one EC unit of account equaled \$1.25 in 1976). Special trade arrangements between Algeria and France under the French system (Protocol 1/7) will be allowed to temporarily coexist with the new accord.

Algerian efforts to diversify its trade have significantly reduced the French share in recent years. The major part of Algerian trade is with the EC countries.

### Exports

Algeria's exports in 1975 were an estimated \$4.3 billion. Petroleum and petroleum products accounted for about \$4 billion. Agricultural exports were wine, citrus fruit, dates, potatoes, tomatoes, apricots, olive oil, olives, and hides and skins.

### Imports

Imports were valued at about \$5.2 billion in 1975. Almost half of this was for capital and semi-finished goods. Food imports accounted for almost \$1 billion. Wheat was the biggest item of value,

and probably between 1.5 and 2.0 million tons were imported. Algeria also imported nearly all of its dairy products, sugar, and edible oils. These increasing food imports have been a great burden for the balance of payments.

#### Trade with the United States

U.S. exports to Algeria in 1975 totaled \$632 million. Agricultural items accounted for \$216 million.

The most important of these were 872,000 tons of wheat valued at \$184 million; inedible tallow valued at \$8.9 million; 68,000 tons of corn worth \$7.8 million; dry beans, lentils, and peas valued at \$8.7 million; nonfat dried milk, \$3.8 million; and leaf tobacco, \$1 million.

U.S. imports from Algeria were valued at \$1,358 million. Two agricultural items, geranium and petitgrain oil, accounted for only \$162,000. (*Herbert H. Steiner*)

## ANGOLA

Economic activity was reduced by the transition from Portuguese colony to independence in 1975 and the subsequent war for political control. Gross domestic product was substantially less than the \$3 billion of 1974. Production of petroleum, diamonds, iron ore, and coffee was severely reduced. Manufacturing (mainly food processing and textiles) was almost brought to a halt by the departure of the Portuguese technicians and skilled workers.

#### Agriculture

Angola was normally the second largest coffee producer in Africa, but 1975 production was less than half that of previous years. Since most of the crop comes from farms of over 100 hectares in size, the flight of the owners and managers and the exit of the migrant laborers from the coffee growing areas almost stopped production. The 50,000 smaller farms owned by Africans were not severely affected, but disruption of the transportation and marketing systems kept much coffee on the farms.

Production of the commercial crops, cotton, sisal, palm oil, and sugar was interrupted by the departure of the farm owners. Cassava, corn, rice, beans, peanuts, and sweet potatoes continued to be produced without much change on small farms by the Africans.

#### Foreign Trade

In most years, the most important exports were petroleum, coffee, iron ore, diamonds, and fishmeal. Exported agricultural commodities (other than coffee) were cotton, sisal, bananas, corn, beans, tobacco, sugar, and palm oil.

U.S. exports to Angola totaled \$53 million in 1975. Agricultural commodities accounted for \$10 million. Of these, corn made up \$5.8 million; wheat, \$1.7 million; and sugar, \$1.5 million.

U.S. imports from Angola were valued at \$425 million. Coffee accounted for \$76 million of this. (*Herbert H. Steiner*)

## EGYPT

President Sadat made many changes in Egypt's economic policy during the last 2 years. Some of those which greatly affected agriculture and trade were:

(1) Sharply boosting prices paid to farmers for allotted crops—cotton, rice, and wheat.

(2) Greatly increasing imports of food items to eliminate shortages.

(3) Removing import duties on most food items and permitting imports of all farm commodities, even cotton.

(4) Returning to previous owners their property which was nationalized during the last 20 years without adequate compensation. Foreigners are

now allowed to invest freely in urban property, but ownership of farmland remains restricted to Egyptians with a limit of 52 acres.

(5) Allowing Egyptians to freely move to other countries to work and to arrange imports of most items on private account.

(6) Encouraging foreign investments in the Egyptian economy.

Egypt's GNP increased about 8 percent in 1975 to about \$11.5 billion. Prices for wheat flour, bread, cooking oil, and some other basic items remained frozen at prices fixed several years ago. Government subsidies for food distribution totaled more than \$1 billion in 1975; wheat products alone cost



over \$700 million. A loaf of fortified bread weighing 1 pound retails for about 15 cents in Cairo.

About 45 percent of Egypt's 38 million people now live in urban areas. Their per capita income is over \$400, about double the level of Egypt's rural dwellers.

### Agriculture

Total agricultural production increased about 2 percent in 1975. Higher prices and larger harvests of wheat, rice, oranges, and vegetables boosted farm income. Cotton production declined from 441,000 tons in 1974 to about 390,000 tons in 1975. This was the only significant crop that declined.

Egypt's agricultural output was valued at about \$3.6 billion in 1975, at current prices. This included record grain production of 7.2 million tons, 6 million tons of vegetables, 1.5 million tons of fruit, and 400,000 tons of pulses. About 38 million tons of berseem were produced to help feed 3 million head of livestock.

Grain production included 2 million tons of wheat, 2.6 million tons of corn, 1.6 million tons of milled rice, and about 850,000 tons of sorghum.

The multiple cropping index for the 6 million acres of cropland in Egypt has reached 1.87, indicating that the farmer harvests about two crops every 12 months from his land. About 99 percent of the farmland is irrigated with water from the Nile River. Local farmers supply most of the fresh produce sold in Egyptian cities, but over 90 percent of the urban bread supply is made from imported wheat or flour.

Before 1975 many farmers sought ways to evade planting allotments of basic crops which had to be sold at low fixed prices, usually to the Government. These crops included cotton, wheat, and rice. Through multiple cropping and a free marketing system, farmers have found vegetables to be more profitable. Recent programs have sharply increased Government procurement prices for allotted crops. Expansion of agricultural production is encouraged by guaranteed purchase arrangements for many crops and by various subsidies. Fertilizers, pesticides, and custom use of tractors are subsidized. Irrigation water is free.

Prices paid to farmers for cotton in 1974 averaged about 29 cents per pound, although the average export price was about 5 times higher. Also, the Government procurement price for rice in 1974 at \$127 per ton was less than a fifth of the average export price. Procurement prices for cotton and rice in 1975 were up more than 25 percent. State trading companies used their profits from exports of cotton and rice to cover some of the heavy losses from Government sales of wheat flour, bread, and rice mostly to urban consumers.

### Foreign Trade

Egypt's three major exports—cotton, textiles, and rice—incurred lower prices in 1975. The tonnage of cotton and rice exported was also down. Agricultural exports declined from a record \$906 million in 1974 to about \$750 million in 1975. Larger exports of onions, potatoes, and fresh vegetables prevented a more severe decline. Total exports remained nearly the same as in 1974 when the value was \$1.6 billion. Exports of petroleum, textiles, foot wear, and light manufactures increased, thus offsetting the decline in sales of farm products.

Total imports reached a record in 1975, probably exceeding \$5 billion. Inflows of convertible currency into Egypt during 1975 probably exceeded \$2 billion. This included large loans and some grants from Saudi Arabia, Kuwait, Iran, and United Arab Emirates. Tolls from the Suez Canal are expected to reach \$550 million in 1976 and tourism will provide another \$300 million in foreign exchange.

The pent-up demand in Egypt for imported agricultural commodities has surfaced as new trade policies have evolved. Agricultural imports increased dramatically from \$310 million in 1973 to \$1.05 billion in 1974 and reached a record \$1.5 billion in 1975. Plans to continue large imports of wheat, flour, corn, cottonseed oil, tobacco, sugar, and livestock products have been announced for 1976. Total imports of farm products in 1976 are expected to exceed \$2 billion.

The U.S. share of Egypt's total agricultural imports declined from about 40 percent in 1973 to 33 percent in 1974 and 28 percent in 1975. The decline might have been more severe if financing under P.L. 480 had not expanded. Shipments through P.L. 480 increased from \$1 million in 1973 to \$20 million in 1974, and total exports rose from \$123 million to \$343 million. About a fifth of U.S. farm exports to Egypt in 1975, valued at \$425 million, moved through Title I, P.L. 480 (long-term dollar credit). This provided about 650,000 tons of wheat and wheat flour and 4,300 tons of tobacco.

About 27 percent of the 2,700 calories received daily by the average Egyptian in 1975 came from imported products. By 1980 imports are likely to provide 38 to 40 percent of Egypt's food supply and by 1985, about half.

Egypt's grain supply averaged 8.5 million tons during 1970-74 when about 35 percent of the supply was imported. The supply increased to about 11 million tons in 1975 when 38 percent was imported. Development of modern poultry and cattle feeding operations, using American technology and capital from oil-rich countries, will generate a marked increase in imports of corn and soybean meal.

Competition from other suppliers has accelerated in Egypt. The European Community (EC) and

Australia are very actively developing markets. The EC provides about 1 million tons of wheat and wheat flour to Egypt annually. Strong gains in sales of frozen poultry, beef, canned meat, and dairy products by the EC in 1975 will be followed by the additional gains in 1976. In addition to shipments of 1 million tons of wheat annually, Australia is sending more beef, dairy products, and canned fruit to Egypt.

Egypt's imports of meat increased from about 10,000 tons in 1974 to over 100,000 tons in 1975. Australia, France, Netherlands, Denmark, Uruguay, and Brazil all shared in the increase.

Egypt is the largest market for U.S. tobacco in the Mideast, taking over 8,000 tons annually. U.S. flue-cured and burley tobacco is used for blending in leading Egyptian cigarette brands. Competition from tobacco exporters in Greece, Turkey, Bulgaria, India, People's Republic of China, and Zambia will be more intense in the future.

In 1975 the United States sold 20,000 bales of medium staple cotton to Egypt. Accordingly, Egypt hopes to have more of the expensive extra long staple cotton for export.

#### Outlook and Policy Changes

Shipments of U.S. wheat and wheat flour are likely to exceed 1.5 million tons annually in the next 3 years, double the 1975 level. U.S. corn exports to Egypt might reach 1 million tons by 1978, more than double the 1975 level.

Shipments of cottonseed oil to Egypt are likely to continue upward, possibly exceeding 180,000 tons in 1976. Sales of soybean oil could also be resumed, possibly reaching 100,000 tons in the late seventies. New crushing facilities in Egypt could cause that country to import over 150,000 tons of soybeans by 1980.

Egyptian rice exports tumbled from 772,000 tons in 1969 to only 90,000 tons in 1975. Most of Egypt's rice exports in recent years were sent to the USSR, Eastern Europe, and Syria through trade agreements. Retrenchment of Egyptian rice sales in these markets opened up new export opportunities for U.S. rice exports.

Egypt could become an importer of rice in 1976. Demand is rising rapidly, partly encouraged by low fixed prices. Expanding rice production will be difficult. Rice exports are used to offset losses from domestic subsidies, not because of any surplus in Egypt. Purchases of U.S. rice for the flourishing tourist trade could become substantial.

The flourishing cigarette industry provides over \$400 million annually from import duties and profits for the Government-owned companies.

Almost all major flour mills are Government owned and operated. The Ministry of Supply imports most of the wheat, corn, flour, vegetable oils, tallow, and meat. Private individuals with convertible currency earned or borrowed outside Egypt are allowed to import food items with few restrictions. Late in 1975 most of the duties on food imports were removed. Many Egyptians working in oil-rich countries invested their savings in purchases of food items for sale in Cairo and Suez Canal cities at excellent profits.

Egypt has been the world's leading exporter of extra-long staple cotton in recent years, but it may soon lose this position because (1) Egyptian textile output is expanding; over half the cotton crop is now used locally. And (2) Egyptian production is dropping. The area planted in cotton has declined as profits from vegetables and other competitive crops have increased.

Although Egypt's dependence on food imports will increase in the next 5 years, strong efforts will be made to boost local output. Government projects designed to boost agricultural production include:

- (1) Reclaiming desert land.
- (2) Planting 200,000 acres of new citrus groves in the next 3 years, mostly in desert areas.
- (3) Building new canneries to preserve seasonal surplus supplies of fruits and vegetables.
- (4) Providing seed of high yielding varieties of wheat, corn, rice, and sorghum to farmers at subsidized prices.
- (5) Improving effectiveness of cooperatives.
- (6) Building large broiler and dairy operations using imported feed and foreign investments.

The shift from raw cotton exports to larger exports of textiles enables Egypt to receive foreign exchange for the input of labor—one of its abundant resources. Textile exports in 1975 were valued at over \$300 million, over half the value for exports of raw cotton.

The Egyptian Supply Mission in Washington, D.C., will be constantly watching for bargains available in U.S. markets. New items which might be purchased in 1976 include pulses, frozen turkeys chicken parts, apples, and various processed foods. The expansion of American and European-style grocery stores in Egyptian cities provides many new opportunities for American exporters of processed foods.

Egypt's agricultural exports are likely to become more diversified in the future, with a greater share of the total provided by horticultural products. New industries along the Suez Canal could help Egypt to develop new exports by using imported raw materials. (*John B. Parker*)



## ETHIOPIA

Ethiopia is currently undergoing broad fundamental political, economic, and social changes. Banks, insurance companies, most industrial concerns, and private schools have been nationalized. Also, a sweeping land reform aims to establish greater economic equality for the people by an austere division of lands and by ending feudal powers and privileges.

The Provisional Military Government which has directed the changes since the Empire officially came to an end September 12, 1974, has continued to place heavy emphasis on industrial growth and on the modernization and improvement of rural Ethiopia. What happens in rural Ethiopia will probably be the dominating force for the country, because agriculture forms the base of the economy. Agriculture contributes some 50 percent of the gross domestic product and provides a livelihood for 85 to 90 percent of the population. Also, since over 90 percent of all exports are agricultural, any economic improvement of development for agriculture is significant.

### Agricultural Production

Ethiopia's grain production improved considerably during 1975. The rainfall was much greater than in 1974, although drought conditions still prevailed in eastern and southeastern provinces. However, because of the carryover effects of the drought, the output of livestock products was reduced which caused the overall value of agricultural production to drop in 1975.

Most cereal crops improved their output in 1975, and some areas had the best crops harvested in 10 or more years. Wheat, corn, and sorghum crops were good. The teff crop, a major staple in Ethiopia, was normal. Teff (*Eragrostis abyssinica*) is a cereal of the lovegrass family. Shortages of supplies of cereals in the towns and cities in 1975 appear to have been more a problem of distribution than a lack of production. Edible dry beans were produced in quantities sufficient for some exports, and Ethiopia has traditionally exported up to 15,000 tons.

The Ethiopian coffee crop was good in 1975. Crop harvesting ran 3 to 4 weeks later than normal, so more of the harvesting than usual ran over into 1976. This delay was attributed to a combination of late flowering and some difficulties in setting up a new coffee production, processing, and marketing system in line with the changed political and economic goals of the new socialist Government.

The new Government changed the name of the old Coffee Board to the Coffee Production and Processing Agency and it has considerably expanded

its activity. The private sector is permitted to continue in coffee trading, processing, and exporting at a somewhat decreased rate but still stronger than was originally believed would be allowed.

Despite greatly improved conditions in many areas, the weather still caused difficulties. Flooding was reported in several provinces and in the east and southeast, especially in Harr Province, little or no rain left these areas in the grip of a continuing drought. This drought led to the loss of thousands of cattle in the area principally used by nomads. At the end of 1975, the Relief Rehabilitation Commission said that food would be required for 100,000 to 150,000 people for 4 or more months.

In areas that have had rain, the local surpluses of grains may tend to keep the cereal prices from rising too rapidly. But the prices of animals remain high, which is an incentive to some livestock producers to sell. This further reduces the breeding stock level already hard hit by the drought.

In Ogoden in the south, the situation has been described as alarming, since livestock holdings per family have dropped well below the levels considered necessary for survival. In this area relief workers report that assistance is still needed for the migratory peoples, since there is a continued influx of migrations of nomads from Somalia where conditions, if anything, have been worse than those in Ethiopia.

### Foreign Trade

Ethiopia enjoyed an increase in its agricultural exports in 1975 which was largely attributable to increases in coffee and some expansion of sugar exports. In addition, other traditional exports, including hides and skins, pulses, oilseed, oil cake, livestock, and fruit and vegetables, were sold.

Coffee exports increased mainly because of the high international prices in the world market. This induced Ethiopian coffee producers to market more coffee. The Government seems to generally approve of the new International Coffee Agreement, since the Government currently sees it as a benefit to Ethiopia, especially during the current world coffee shortages.

Agricultural imports consist principally of food, beverages, and tobacco. These items have increased only slightly during 1975 and have remained at a level of about 6 percent of total imports.

During 1975 the United States imported \$46 million in agricultural items from Ethiopia, at least 23 percent less than in 1974. This drop in imports was in items other than coffee which dipped only \$1 million below the 1974 import value. U.S. exports to Ethiopia were only \$3.6 million, about 40 percent

of what they were in 1974 because fewer food imports were needed in 1975.

### Outlook

If the Provisional Military Government and its Administrative Council, popularly referred to as the Dergue (Amharic word for committee), can continue to meet the most pressing problems by satisfying most of the people, then political and security problems may diminish. Certainly agriculture is important in this effort.

In the capital, Addis Ababa, currently there are serious shortages coupled with very high prices for such consumer items as high-quality teff, wheat, other food grains, sugar, salt, and matches. Distribution and inflation problems have been hard to

solve because the shortages relate to internal security, hoarding by farmers, and alleged profiteering by merchants. So, in March 1976, the Government announced that consumer cooperatives would be established for the capital. Once these cooperatives are functioning in all 10 districts of Addis Ababa, the program will be expanded to other urban centers and then to rural areas.

To expand trade, Ethiopia is currently trying to develop additional markets for its major agricultural exports. In addition, the leaders would like to attract investment. Certainly any lessening of internal tensions coupled with sustained agricultural production would make this agrarian and pastoral country a more attractive location for international investment in agriculture and industry. (*H. Charles Treagle*)

## GHANA

### Agricultural Production

According to USDA indices of agricultural production, farm output in 1975 was 26 percent larger than the 1961-65 average. In 1974 the index was 120. Some of the 1975 increase can be attributed to the bountiful crop of cocoa beans (405,000 ton), 8 percent more than the 1974 crop. In response to the Government's Operation Feed Yourself, some increases in crop production have been noted, particularly for rice and corn.

The indices show a per capita food production index for 1975 of only 88 (1961-65=100). This figure seems to be supported by the relatively large quantities of food which Ghana imports.

### Policy

A companion program to Operation Feed Yourself has been initiated by the Government of Ghana. The new program is called Operation Feed Your Industries and aims to increase domestic production of oil palm, coconuts, cotton, peanuts, sugarcane, tomatoes, kenaf, citrus fruits, and soybeans. The industries to be "fed" include canneries and oilseed crushing mills, as well as textile mills.

The Ghana Government recently announced that a farmer's income from cocoa will be exempt from income tax. Cocoa already makes a hefty contribution to the Government in the form of export tax and marketing board trading profit. Furthermore, a farmer who tries a new enterprise (non-cocoa) will be exempt from income tax for 5 years.

For the 1975/76 cocoa season the price paid producers of Grade I cocoa beans was increased from 15 cedis per head load of 60 pounds (21.75 cents a pound) to 16 cedis per head load (23.20 cents a

pound). In addition, the 3 cedis (\$2.61) per ton year-end bonus will continue to be paid.

The 1975/76 budget raised the tariff rate on most food imports from 20 to 50 percent.

### Foreign Trade

Cocoa and its products continue to comprise most of Ghana's exports of agricultural commodities, making up over 99 percent of the value of a list of selected agricultural exports. In 1974 exports of cocoa and products were valued at \$470 million. Coffee exports were valued at \$2.04 million; yams and cocoyams, \$420,000; and feedstuffs (cassava), \$334,000.

Ghana's imports of selected agricultural commodities in 1974 had a total value of \$88 million. Of these wheat was valued at \$21.8 million; rice, \$18.2 million; sugar, \$14.6 million; cotton, \$10.3 million; palm oil, \$9.2 million; dry milk and cream, \$7 million; flue-cured tobacco, \$3.1 million; tallow, \$1.9 million; and soybean oil, \$1.3 million.

Ghana continues to be a reliable and growing market for many U.S. agricultural exports, increasing almost a fourth from 1974 to 1975, from \$20.1 million to \$24.8 million. Main U.S. agricultural exports to Ghana in 1975 were cotton (\$8.1 million), wheat (\$6.1 million), tallow (\$4.5 million), and tobacco (\$3.5 million).

The United States regards Ghana as a reliable major source of cocoa beans and cocoa products. In 1975 the United States imported \$67.9 million of these products, plus coffee valued at \$807,000. Cocoa and coffee made up nearly all of the 1975 U.S. agricultural imports, a total of \$68.8 million. (*Snider W. Skinner*)



## IVORY COAST

Many new factories for processing farm commodities are operating, under construction, or planned. A coffee cleaning plant has been completed at Toubokro, and similar plants are to be located next at Abengourou, Gagnoa, Man, and later at six other locations. A new cocoa processing plant will begin operation in 1976 and another in 1977.

A sugar plantation and factory at Ferkessedougou have been completed. The sugarcane plantation covers 15,000 acres, and the factory can produce 60,000 tons of granulated and cubed sugar. A second sugarcane plantation and factory complex is planned for Ferkessedougou, and a third complex is proposed for Borotou.

A cottonseed crushing plant has been completed at Bouake; it can also crush soybeans and peanuts. A plant for shelling and packing cashew nuts is envisaged for Korhogo. It will have an annual capacity of 750 tons.

### Agricultural Production

Crop production in 1975 was average. Localized storms caused some damage. Migratory labor, especially from Upper Volta, was short in supply.

The index of agricultural production reached 176, compared with 168 in 1974 (1961-65=100). Ivory Coast's 1975 coffee production of 279,000 tons was fractionally larger than the 270,000 tons produced in 1974. It was large enough to give Ivory Coast undisputed first place among African coffee-producing countries and third place in the world (after Brazil and Colombia).

Cocoa production of 215,000 tons was 11 percent below the 1974 crop. The crop was large enough to give Ivory Coast third place in Africa and fourth place in the world (after Ghana, Brazil, and Nigeria) among cocoa-producing countries.

Although production of palm oil in 1975, an estimated 155,000 tons, was third highest among African countries, Ivory Coast was the leading African exporter of palm oil.

Production of pineapple in 1975 is estimated at 235,000 tons. Over two-thirds of the crop was processed by canning factories, and most of the rest was exported fresh.

Banana production in 1975 was estimated at 194,000 tons. This was 7 percent below the 1974 crop of 208,000 tons.

### Agricultural Policy

Much of the Ivory Coast's meat formerly came from livestock driven over the border from Mali and Upper Volta. The recent Sahel drought caused great livestock losses in these countries and a sub-

sequent shortage of meat in the the Ivory Coast. The Ivory Coast started a program to establish cattle herds in the northern part of the country and on oil palm plantations in the south. Chickens, hogs, and goats will also be included in the plan. Implementation of the program will include phytosanitary measures, guaranteed producer prices, removal of taxes on feed and materials for animal production, production of animal feeds, a tax on fish and meat imports to help finance feed production, and establishment of large ranches.

Government-fixed prices to producers in 1975/76 remained essentially unchanged from the previous year. Producer prices for rice, cocoa beans, and coffee were high in relation to world markets.

Table 2--Agricultural producer prices for the Ivory Coast, 1975/76

Commodity	Price
	: Cents per pound
Rice, paddy.....	15.1
Coffee, cleaned.....	30.3
Coffee, cherry form	:
for mill (raised from :	
12.1 cents a pound in :	
1974/75).....	15.1
Cocoa.....	35.3
Bunches of palm fruit..	1.6
	:
Cotton, first quality..	14.1
Cotton, second	:
quality.....	12.1
Pineapples, at the	:
cannery.....	2.1
	:

Plans for agricultural development for 1976 to 1978 were recently approved in the Ivory Coast. The plans include these.

—Oil palm projects will be started in the lower Cavally River region on the Liberia-Ivory Coast border, plus 22,200 acres of village plantations in the southeast.

—About 46,500 acres of coconut palms will be planted in the lower Cavally River region and in the interior of the country.

—New cocoa trees will be planted on 170,000 acres east and west of the Sassandra River.

—The kenaf program has been abandoned for technical and economic reasons.

—Sugar production is expected to reach 90,000 tons in 1978 and 600,000 tons during 1985-90.

—Other programs aim to increase production of rice, rubber, cotton, and coffee, as well as livestock.

### Foreign Trade

In 1975, Ivory Coast recorded a trade surplus of about \$44 million, continuing an enviable trade pattern of many years. However, the 1975 balance of payments was expected to show a small deficit.

## KENYA

The gross domestic product, at constant prices, increased by about 3 percent in 1975. This is low, compared to growth in the sixties, and on a per capita basis, it is a decline. Severe balance of payments deficits constrained economic growth and probably will slow the 1976 performance as well.

The Government hopes that sharply higher export coffee prices, coupled with increased volume, will keep the trade deficit manageable in 1976. In 1975 the balance of trade deficit of \$400 million was the largest since independence. Export revenue grew slightly with agricultural exports doing poorly, coffee in particular.

The Government indicated that priority will be increased for agriculture. It is responsible for much of the development investment and for many of the pricing decisions. In recent years the proportion of total capital formation devoted to the agricultural sector has been declining. Over \$300 million has been received in loan and grant commitments from external sources which should make it possible to continue financing the development program.

### Agricultural Production

Overall agricultural production is estimated to have increased very slightly, about 0.6 percent, compared to 1974. In per capita terms, however, it declined by almost 3 percent. This is the poorest year since 1971. From 1970 through 1975, total agricultural production increased at an annual compound rate near the long-term rate of about 4.4 percent.

Dry conditions in some areas and the relatively high cost of inputs affected small farmers in particular. Of the major crops, only corn, tea, and pyrethrum showed increases in both production and value.

U.S. agricultural exports to Ivory Coast in 1975 were valued at a modest \$1.96 million, barely half the \$3.87 million of 1974. Main 1975 items were rice (\$630,000), tallow (\$579,000), and corn-soy-milk blend (\$381,000).

By contrast, 1975 U.S. imports of Ivory Coast farm products were valued at a massive \$149 million, up 78 percent over the 1974 figure of \$83.6 million. Major 1975 imports were coffee (\$75.3 million) and cocoa and cocoa products (\$70.3 million). Less valuable imports included palm oil (\$2.14 million), rubber (\$542,000), and canned pineapples (\$405,000). (*Snider W. Skinner*)

### Commodities

**Corn.**—Rainfall in Kenya is very erratic. Although some areas and crops were subjected to drought in 1975, mainly in the eastern parts of the country, and early in 1976, prolonged rains over important corn areas in 1975 were a big factor in the 28 percent increase to a record 467,000 tons of commercial marketings of corn. The Maize and Produce Board storage capacity for corn is estimated at 470,000 tons. The estimated carryover as of July 1, 1976, is 206,000 tons. This would be 126,000 tons less than in 1975 and assumes exports of 235,000 tons during 1975/76 (July-June). Internal sales are estimated at about 343,000 to 426,000 tons, including use for feed of about 20,000 tons.

**Wheat.**—Production increased by about 1 percent from 1974, possibly reversing a general downward trend which began in 1970. This occurred with a 5-percent increase in planted area to 105,000 hectares. Unusual rainfall patterns during the harvesting period reduced the quality and also the quantity of wheat. Because of high cost, only minimal amounts of fertilizer were used which reduced yields. Since consumption is about 200,000 tons a year, imports have been needed to replenish stocks. Of the 74,000 tons imported, 40,000 were from the United States.

**Rice.**—Rice (paddy) production is estimated at 32,000 tons, about 3 percent less than last year. Consumption remains static, since the Maize and Produce Board controls distribution and does not import any significant amounts.

**Barley.**—Production has been increasing rapidly since about 1969, but it dropped about 6 percent in 1975. Beer consumption has been increasing rapidly, and the Kenya Breweries have worked closely



with producers to get their barley needs grown domestically. Some of the new wheat areas around Mau Narok were switched to barley in 1975, because the potential returns were greater.

*Coffee.*—Production during 1975 is estimated at 66,200 tons, almost 6 percent below 1974's crop. Since very little coffee was sold at the higher prevailing prices later in the year and since export prices in 1975 averaged below 1974, export earnings dropped 15 percent from KL 37 million to KL 31.5 million. (1 KL = Kshs 20.00; 100 Kenya cents = 1 Kshs. U.S. \$1.00 = Kshs 7.1428 before October 27, 1975, and Kshs 8.248 as of that date.)

*Tea.*—Production increased by slightly more than 5 percent from 1974 to 56,256 tons of manufactured tea. Small holders accounted for 31.6 percent of production, up from 30.3 percent in 1974. They held 59 percent of the acreage in 1974. Average export prices were up considerably from 1974.

*Sugar.*—Production of refined sugar dropped slightly in 1975 to 161,000 tons. Although the new Mumias mill increased its production, problems at the other four mills offset these gains. Imports totaled about 55,000 tons during 1975. Consumption was about 215,000 tons, reversing the upward trend. Consumption in the previous year had been 219,000 tons. In January 1975, the retail price of sugar increased by 46 percent to Ksh 3.50 per kilogram (22 cents per pound).

*Pyrethrum.*—Dried flower production, estimated at 15,000 tons, was 7 percent above 1974 because of better weather. The elimination of the tax on flowers sold by farmers should stimulate production.

*Sisal.*—The over-cutting in 1974 because of very high export prices had an adverse effect on 1975's output, estimated at only 44,000 tons, a drop of nearly 50 percent from 1974. Prices dropped about 40 percent compared to 1974. The 1976 production is expected to decline further.

*Pineapples.*—The 66 percent jump in production to 73,000 tons in 1975 reflects the first year of operation of the Del Monte canning plant at Thika. Most of the pineapple production is exported to Europe as either fresh or canned. Production may reach 100,000 tons in 1976 as additional areas come into production at Thika.

*Livestock.*—Dry weather adversely affected the livestock and dairy industries. Cattle had to be moved from ranches in the southeastern part of the country. Many farmers could not afford the high cost of feed concentrates. The 7-percent milk price increase at the beginning of the year did not prevent the dispersal of several large dairy herds during the year.

Cattle slaughter by the Kenya Meat Commission (KMC), a parastatal body of the Government,

dropped sharply in 1975. The total domestic supply of beef probably did not change very much, however, because local butchers were permitted to buy cattle directly from producers. Since local butchers paid cash and provided transport, many producers preferred this method compared to selling to the KMC and waiting for carcass grading of their cattle and then for payment.

This change in selling practices seems to be a major cause for 1975's 10-percent increase from 1974 to just over 20,000 head of beef cattle for feeding. Kenya's 12 registered feedlots, based on 90-day feeding, have a capacity of 45,000 head per year.

With better prices, swine slaughter at the Uplands Bacon Factory increased to about 40,000 head.

## Inputs

*Fertilizers.*—Although supplies were adequate during the year, total consumption, estimated at about 140,000 tons, was down more than 20 percent from 1974 because of high prices. A contract was signed for constructing and operating a fertilizer plant in Mombasa. Production is expected to begin by late 1977.

With about a 40-percent reduction in retail fertilizer prices for 1976, consumption should rise to the former level of 180,000 tons. However, producer prices for wheat and corn have not been increased for the 1976 crops.

*Corn hybrids.*—The Ministry of Agriculture estimated that about 1.04 million hectares were planted to corn in 1975. Even though the total corn area is not changing much, the area in hybrids is expanding. In 1975 it was 340,000 hectares; in 1967, 100,000 hectares. More than 80 percent of the hybrids are now planted by small holders.

## Foreign Trade

Imports totaled about \$1,100 million, up slightly from 1974's \$1,035 million. But the volume of imports dropped 15 to 20 percent. Total exports increased to nearly \$700 million, leaving a \$400 million trade gap on the merchandise account.

Trade with the East African Community countries fell by 2 percent. Major exports were petroleum products, coffee, tea, sisal, and livestock products. About 100,000 tons of corn were exported. Cotton exports were banned in 1975 to provide for the needs of expanding domestic mill capacity. For 1976, producer prices were increased 25 percent, and production could increase sharply to 7,000 tons of lint.

Since 1971 overall value of agricultural imports has grown rapidly. Major agricultural imports were wheat, tobacco, cotton, and sugar. Tobacco was supplied by Tanzania. Uganda and Tanzania have

been traditional suppliers of small cotton imports. Because of recent quality and contract problems, Kenya is looking for new sources of supply. Growing textile mill capacity will require larger cotton imports.

U.S. agricultural exports to Kenya were up in 1975. Total value was \$6.2 million. But if a 30,000-ton wheat shipment that was originally sold to Iran and then resold to Kenya is included, total value could be around \$10 million. Other important U.S. exports were tallow, relief food, and sugar.

U.S. agricultural purchases of \$32.2 million were also higher. More than 80 percent of the value was comprised of coffee and tea. Other important items are pyrethrum flowers, sisal, and dehydrated vegetables.

### Policy and Outlook

Wheat area is expected to increase as Government-financed schemes in the western part of the Rift Valley Province are expanded. During the 1975/76 fiscal year, the Government provided Ksh 88 million for use by large- and small-scale farmers for wheat and hybrid corn production. No imports are anticipated during 1976, since wheat stocks should be adequate at over the 60,000-ton level on October 1 when the new crop begins to be harvested. Over the longrun, the Government plans to invest in a road network in Narok District to encourage increased wheat production in this area.

*Livestock.*—Beef production received a boost from policymakers early in 1976 when retail prices of the two top grades of beef were freed. This is expected to increase the feeding of cattle as butchers will now be able to pay more for top-grade animals. Since the lower-grade prices, that is, beef mainly from the poorer grazing areas remain fixed, the expected result is that more of the poorer range cattle will be fed in lots before slaughter.

Milk production is expected to remain highly dependent on pasture conditions, because the 21.4-percent increase over last year's price, to 93.5 Kenya cents per liter, is not considered by farmers high enough to permit feed buying during dry periods.

*Coffee.*—The forecast for the 1976 crop is 70,000 tons. Coffee fertilizers have been reduced in price by 28 percent from last year. Nairobi auction prices since the start of the 1975/76 season through January 1976 were Ksh. 14,600 per ton, or about 64 percent above prices a year earlier. In anticipation that prices may rise further, the Kenya Planters Cooperative Union set up a new inspection and advisory service which will include advice on fertilizing, spraying, pruning, and so forth. One of the Government's main objectives is to improve the quality of coffee.

*Tea.*—With more small holder tea plantings reaching maturity, a conservative estimate for the 1976 crop is 58,000 tons. This would be a new record. Through a Government subsidy, fertilizer is being made available at a price similar to that for the coffee growers. The world market price for Kenya tea is expected to continue the upward trend of 1975.

*Sugar.*—Several steps are being taken to increase sugar production. The target is self-sufficiency. Early in 1976 the producer price for cane was raised. The mill price of raw sugar was increased by 73 percent in western Kenya. Land is being purchased and planted to cane for a new mill in Nzoia which is near the Mumias mill in western Kenya. Raw sugar production could top 180,000 tons during 1976.

The retail price of sugar increased 28.6 percent to Ksh 4.50 a kilogram early in 1976. Domestic consumption is expected to remain at last year's level of 215,000 tons (refined). Then imports would be about 35,000 tons. (*Lawrence A. Witucki*)

## LIBERIA

The gross domestic product for 1975 is estimated at \$747 million. The GDP forecast for 1976 is \$835 million. Liberia's 1975 rate of inflation is an estimated 18 percent; the forecast rate for 1976 is 12 percent.

### Agricultural Production

Since rainfall is consistently heavy and temperature consistently high from year to year, year-to-year crop production is generally quite consistent. However, USDA indices of agricultural production show a 1975 index number of 146, down 7 percent from 1974, largely because of a lower estimate for rubber production.

### Outlook

Several projects are underway in Liberia. If successful, they will substantially change the structure of Liberian agriculture. The projects are:

(1) A \$17 million rural development program in Lofa County to help 8,000 small farmers by improving cultivation practices, water supplies, health facilities, disease control, and the development of cooperatives. Crop development will emphasize rice in upland, swamp, and irrigated areas. Coffee and cocoa will also be stressed.

(2) Development of a 6,000-acre sugarcane plantation along the Cavalla River in Maryland



County, together with the construction of a sugar mill. Production of sugar should begin in 1978.

(3) Development of central plantations surrounded by individual farmers (outgrowers), copying the successful Ivory Coast model. Teams from the Ivory Coast have been conducting feasibility studies in Liberia. These studies could lead to the planting of 150,000 acres of oil palms, 20,000 acres of coconuts, 15,000 acres of cocoa, and 10,000 acres of coffee.

### Foreign Trade

The value of Liberia's 1975 exports was an estimated \$414 million. Iron ore (\$315 million) and rubber (\$53 million) were the major items. Agricul-

tural exports other than rubber were valued at \$14 million.

Liberian 1975 imports were valued at \$335 million. A major item was petroleum that was valued at \$57 million. The 1975 trade surplus is estimated at \$79 million, compared with \$87 million in 1974.

The United States exports many grocery-store items to Liberia. U.S. agricultural exports in 1975 totaled \$14.4 million, off nearly a fourth from 1974 exports of \$18.6 million.

U.S. imports of agricultural commodities from Liberia had a total value of \$44.5 million, 17 percent less than the 1974 value of \$53.7 million. Chief 1975 agricultural imports were rubber (\$40.3 million), coffee (\$3.1 million), and palm kernel oil (\$1.1 million). (*Snider W. Skinner*)

## MOROCCO

The Moroccan economy slowed in 1975. Phosphate rock exports declined 30 percent because of buyer resistance to the high prices. As a result, phosphate rock production totaled only slightly more than 13 million tons, compared to 1974's 20 million. Even with a balance of trade deficit of \$1 billion at the end of 1975, remittances of \$527 million from Moroccan workers abroad, together with loans from other countries and substantial tourist spending, helped to nearly balance the payments. Inflation was only 11 percent, compared to 16 percent in 1974.

The 1976 investment budget, 57 percent more than the 1975 budget, will include a \$2.8-billion deficit, two-thirds of this borrowed from abroad. Because of this deficit spending, no new taxes will be required. The large increase of investments in 1976 are also possible by reducing consumer food subsidies from \$934 million to \$468 million because of the lower world prices for wheat and sugar. In 1974 Morocco was the largest phosphate rock exporter and supplied about 35 percent of the world market. Acquisition of phosphate deposits from the Spanish Sahara will strengthen Morocco's dominant position in the phosphate market and improve 1976 marketing prospects, whether or not the Bou Craa Mine soon returns to production.

### Agricultural Production

Dry weather late in 1974 caused below average harvests of wheat and barley in 1975, although subsequent well-distributed spring rains and moderate temperatures prevented the much greater losses that had been originally expected. Declines of 13 to 15 percent in the wheat harvest stemmed from smaller plantings caused by the drought

during the planting season. Actual wheat yields were about the same as in 1974. Barley yields, on the other hand, were down 39 percent, because barley planted on the drylands of the south was more affected by the lack of moisture.

The planted area of high-yielding varieties of wheat is declining in Morocco. Only 300,000 hectares of HYV wheat were planted, because farmers were advised not to risk expensive seed in a droughty year.

Citrus production for the 1974/75 season was down 28 percent from the previous year. It was the poorest citrus year since 1964/65.

Wine production declined 40 percent because of the drought. Broadbeans and chickpeas were also sharply down after the record production in 1974. Sugar production declined despite the great emphasis to become self-sufficient. This was the second year that sugarcane was processed. Sugar beets are also processed.

The index of total agricultural production declined from 146 to 118. The per capita food index of 80 was a record low.

Peanuts, until now a minor crop, reached a production of 19,000 tons. It was the most important oilseed in 1975.

### Agricultural Policy

In 1975 Morocco produced about 50 percent of its needed wheat, 55 percent of its sugar, and 40 percent of its vegetable oil. Imports of these staples cost Morocco about \$587 million in foreign exchange. Besides trying to increase cereal production, the Government has programs to achieve self-sufficiency in sugar, vegetable oil, and milk within 25 years.

A subsidy of \$50 million was used to reduce the prices of fertilizer in 1975. Machinery prices were fixed. Since only about 40 percent of the land is tilled by machinery at present, a decision was made to increase the number of tractors by 30 percent in 1976.

A dilemma for the Government is what to do with the lands taken from the foreign owners. These farms were to be distributed to the landless agricultural workers, but from 1966 to 1974 only 184,720 hectares were distributed. Most of the land is still managed by two giant agribusiness corporations controlled by the Government. Although distributing the large farms might reduce their productivity, the King announced the distribution of an additional 76,000 hectares in a speech launching the "Green March."

### Foreign Trade

Morocco's 1975 exports are estimated at about \$1.5 billion, down from 1974's \$1.59 billion. Tonnage of phosphate rock sold was off by 30 percent, but value declined only 16 percent. Citrus exports were down 18 percent, but increased 5 percent in value. The value of most agricultural exports declined in 1975. These exports included fresh tomatoes, canned and processed vegetables, dried beans and peas, olive oil, wine, potatoes, cotton, and cork. Only canary seed increased substantially.

Total imports increased to \$2.5 billion in 1975 from the 1974 value of \$1.9 billion. Machinery and manufactured products increased in value, but another major cause for the jump in imports was the import of 1.30 million tons of wheat valued at more than \$234 million, a 36 percent increase over 1974. Although the tonnage of sugar was about the same as in 1974 (268,000 tons), its value (\$220 mil-

lion) was 59 percent higher. Vegetable oil imports, mainly soybean and rapeseed oil, were estimated at about 160,000 tons and were valued at \$100 million. Other commodities showing increases in value over 1974 were dairy products, seed potatoes, tobacco, wool, coffee, and bananas. But natural rubber, sisal, jute, tea, tallow, cotton, and oilseeds decreased in value.

Early in 1976 the European Community (EC) signed a cooperation agreement promising Morocco 130 million units of account (an EC unit of account was worth about \$1.25 in early 1976) in aid over a 5-year period. In addition, Moroccan industrial products and 50,000 hectoliters of quality bottled wine will have duty-free entry in the EC. Ordinary bulk wines will receive an 80-percent tariff reduction so long as they are not used for blending and are not sold below EC threshold prices. The EC import duty on olive oil will be reduced by 0.5 units of account. Citrus fruit will receive an 80-percent tariff reduction when market conditions permit. Concessions on Moroccan fruits and vegetables will be granted at certain seasons of the year.

U.S. exports to Morocco totaled \$199 million. Of this, agricultural exports were valued at \$73 million, a decrease of 42 percent from 1974. Wheat was the main item, and it accounted for \$48 million, a 33 percent decline from 1974. Wheat flour, valued at \$5 million, was down 64 percent. Other U.S. cereals exported to Morocco were barley, valued at \$2.6 million, and corn, \$5 million. Morocco also purchased cotton for \$3.7 million; tallow, \$2.5 million; soybean oil, \$1.4 million; and tobacco, \$1.2 million.

Total U.S. imports from Morocco were valued at \$10 million. Agricultural items accounted for \$2.5 million. The main items included olives, \$718,000; paprika, \$409,000; capers, \$537,000; and coriander, \$148,000. (*Herbert H. Steiner*)

## MOZAMBIQUE

Mozambique became independent on June 25, 1975. Economic activity continued to decline as more entrepreneurs and technicians left the country.

### Agriculture

Agricultural production, which accounted for 75 percent of gross national product in the early seventies, declined substantially in 1975. Corn, peanuts, sorghum, millet, rice, tea, sugar, cotton, and tobacco all shared in the decline. All land was nationalized, and the Government has begun to set

up communal villages similar to the Tanzanian "Ujamaa." In expectation of this new system, most of the white farmers left Mozambique by mid-1975.

Cashew nuts and copra were the only important crops that continued at normal production levels. Cashews are picked from wild trees, and half the copra comes from 5 large plantations that were not yet affected by the changes.

Floods in central Mozambique in February 1976 aggravated already serious food shortages. Grain was shipped in under the auspices of the World Food Program and bilateral donors.



## Foreign Trade

Mozambique's balance of payments deficit, estimated at \$27.8 million in 1974, continued in 1975, despite \$80 to \$90 million in payments of gold from South Africa for wages withheld from Mozambicans working in the South African mines. By closing the Rhodesian border in March 1976, Mozambique lost the transit traffic, another important source of foreign exchange.

### Exports

Agricultural exports were worth \$229 million in 1974 and accounted for 77 percent of the total value of exports. Sugar and molasses accounted for \$65 million of this. Cashew nuts, kernels, and shell liquid together were valued at \$63 million. Other important commodities were cotton (\$33 million), copra (\$22 million), tea (\$11 million), coconut and peanut oils (\$9 million), sisal (\$6.1 million), dry

beans (\$4 million), citrus fruit (\$2.3 million), tobacco (\$2.2 million), and oilseed cake and meal (\$4.2 million). These exports dropped both in quantity and value in 1975.

### Imports

Imports totaled \$460 million in 1974; only \$39 million were agricultural. Important items were wheat (\$12 million), wine (\$5.4 million), dairy products (\$4.3 million), olive oil (\$1.8 million), potatoes (\$1.6 million), and corn (\$1.1 million). Except for cereals imported as food aid, all of these imports were much smaller in 1975.

U.S. exports to Mozambique were valued at \$18 million in 1975. The only important agricultural item was wheat (\$3.4 million).

U.S. imports from Mozambique totaled \$36 million in 1975. Cashew kernels were valued at \$22 million; sugar and molasses, \$6.8 million; and tea, \$2.6 million. (*Herbert H. Steiner*)

## NIGERIA

Nigeria had a very good year in 1975 but not so good as in 1974. Petroleum production declined from an average of 2.3 million barrels a day in 1974 to less than 1.5 million barrels a day in May 1975. Demand improved through the fourth quarter of 1975, but production was still less than 2 million barrels a day.

Nigeria earned \$9.3 billion from exports in 1974 and had a favorable trade balance of \$6.5 billion. During the first half of 1975, exports totaled \$3.3 billion, a 34-percent decrease from the \$5 billion of exports for the first half of 1974, chiefly because of the decline in petroleum revenues. Value of imports during the first half of 1975 increased to \$2.56 billion, or 115 percent greater than the value of imports during the first half of 1974.

During 1974, Nigerian foreign exchange reserves increased by \$5 billion. During the first 9 months of 1975, they increased by only \$27 million.

Formerly, production and export of farm commodities were the basis of the Nigerian economy. Now, petroleum is the basis, providing 91 percent of exports, 87 percent of Nigerian Federal Government revenues, and 45.5 percent of the gross domestic product.

A special survey of selected consumer prices was made by the Central Bank of Nigeria over an 8-month period ending in July 1975. The survey showed that prices had risen 44 percent during that 8-month span of time. Contributing to the rise were imported inflation, inadequate domestic production, port congestion, and a generous retroactive wage increase awarded in January 1975.

### Agricultural Production

According to the USDA indices of agricultural production, the outturn of farm commodities in 1975 was 124 percent of the 1961-65 average. The 1974 production index was 120.

Prolonged fall rainfall in northern Nigeria in 1975 increased the production of cotton, millet, sorghum, corn, rice, and other crops. Ordinarily, the long fall rains would also have brought a bumper crop of peanuts. However, the peanut crop was badly damaged by rosette disease, a virus transmitted by aphids. The vector is carried through the dry season by a weed, *Euphorbia* *Listia*. Because of high local market prices, growers may not offer any peanuts to the Marketing Boards from the 1975 crop. Traditionally the world's largest peanut exporter, Nigeria has few peanuts and peanut products to export from the 1975 crop.

Cocoa production for 1975/76 is estimated at 230,000 metric tons, 8 percent larger than the previous year's output. Because of the long fall rains, most cocoa trees are in good condition and should bear well in 1976/77.

Fertilizer usage in Nigeria continues low, less than 1 kilogram of plant nutrients per hectare of land in crops (in western Europe, fertilizer use generally exceeds 200 kilograms per hectare). A \$24 million superphosphate plant has been completed at Kaduna, but transportation problems have been encountered in importing phosphate rock from nearby Togo. Nigeria's 1975-80 Development Plan sets aside \$110 million for building a nitrogenous

fertilizer plant but no contract has been awarded to date. The Federal Military Government announced that it is making \$120 million available to subsidize half the cost of fertilizer distributed to farmers within the coming 5 years.

### Agricultural Policy

In several instances, Nigeria is turning to large-scale mechanized farming to increase agricultural production. The Government of Mid-Western State has contracted with an American company to clear, plant, irrigate, and harvest 15,000 acres of bushland a year for 7 years covering 105,000 acres in total, by using heavy tractors and equipment. Main crops are corn and rice. Some observers feel that this is not a suitable way to farm in Africa, and the results are awaited with interest.

The World Bank is assisting with 3 large-scale agricultural development projects in northern Nigeria. They are planned to produce a variety of food crops, as well as cotton and peanuts. Completion is planned within 5 to 7 years at a total cost of \$187 million. The projects are located at Funtua, North Central State; Gombe, North Eastern State; and Gusau, North Western State.

The National Grains Production Company is planning to establish several large-scale grain farms in mid-Nigeria. It is inviting American companies to assist in this effort.

### Foreign Trade

Although now greatly outvalued by petroleum exports, farm exports are still quite important to Nigeria. Exports of major agricultural commodities were valued at \$444 million in 1973, \$496 million in 1974, and \$327 million for the first 9 months of 1975. Chief exports in 1973 included \$212 million of cocoa, cocoa butter, and cocoa cake; \$130 million for peanuts, peanut oil, and peanut cake and meal; \$44.7 million for palm kernels, palm kernel oil, and palm kernel cake and meal; \$31 million for rubber; \$20 million for hides and skins; \$5.3 million for shea nuts; and \$675,000 for gum arabic. In 1974, exports of cocoa beans and products were valued at \$296 million; palm kernels and products, \$110 mil-

lion; rubber, \$33.3 million; peanuts and products, \$31.2 million; hides and skins, \$16.9 million; shea nuts, \$4.8 million; and gum arabic, \$4.0 million. Exports of peanut products during the first 9 months of 1975 brought only \$946,000; cocoa and cocoa products, \$230 million; palm kernels and products, \$31.1 million; rubber, \$18.5 million; hides and skins, \$9.5 million; shea nuts, \$4.9 million; and gum arabic, \$1.8 million.

Imports of selected agricultural products totaled \$146 million in 1973, \$179 million in 1974, and \$224 million during the first 9 months of 1975. Major agricultural imports included wheat, sugar, milk, and cream.

U.S. agricultural exports to Nigeria increased nearly 18 percent, from \$82.3 million in 1974 to \$96.9 million in 1975. Chief agricultural exports in 1975 included wheat valued at \$61.8 million; tal-low, \$7 million; food for relief, \$4.8 million; cotton, \$4.6 million; sugar, \$4.2 million; rice, \$3.7 million; beer and ale, \$3.5 million; and tobacco, \$1.2 million.

U.S. farm imports from Nigeria declined 42 percent, from \$54 million in 1974 to \$31.4 million in 1975. Chief farm imports in 1975 included cocoa and products valued at \$24.2 million; rubber, \$2.6 million; hides and skins, \$1.8 million; palm oil, \$1.3 million; and ginger, \$1.2 million.

Meat has long been short in supply in Nigeria. Traditionally, about a third of Nigeria's meat supply has come from cattle driven across the border from Niger and Chad. Many of the Niger and Chad cattle died during the recent Sahelian drought, and few of the survivors were driven into Nigeria. Faced with a meat shortage, the Government began airfreighting chilled beef from Europe. This beef was sold to consumers at \$1.08 a pound. Europe, Brazil, and Argentina are expected to be long-term suppliers of meat to Nigeria.

To alleviate storage and marketing problems in grains, the Federal Military Government has provided \$64 million to build grain storage facilities with a capacity of 250,000 tons and to establish a storage, marketing, and distribution program under the National Grains Production Company. (*Snider W. Skinner*)

## SENEGAL

### Agricultural Production

According to the USDA indices of agricultural production, total farm output in Senegal in 1975 was 14 percent better than in 1974 and almost half

again as bountiful as in 1973. A good peanut crop in 1975 helped raise the index number.

For Senegal, 1975 was the second year of recovery from the Sahelian drought. The estimated 1975 peanut crop of 1.21 million tons was 34 per-



cent larger than the 1974 crop. Production of the subsistence grain crops of sorghum, millet, and corn also showed some increases. Rice production showed an increase in 1975. But domestic production is still not enough to supply domestic consumption, so imports are necessary.

Cotton was first planted in Senegal on a commercial basis in 1963. Area and production have increased steadily since then. Production of unginned cotton in 1975 was reported at 42,000 tons.

Production of vegetables for shipment to winter markets in western Europe continues. Main products are peppers, tomatoes, green beans, and melons.

Sugarcane growing is increasing in a spectacular way. In 1975 sugar production was 20,000 tons and is expected to reach 60,000 tons in 1976. This will almost equal Senegal's sugar consumption.

### Foreign Trade

Senegal's trade deficit in 1974 was \$60 million. Even this relatively large figure was an improvement over the \$84 million deficit of 1973.

Chief farm exports in 1974 consisted of 100,000 tons of peanut oil and 177,000 tons of peanut meal. In 1975 these rose to 209,000 tons of oil and 301,000 tons of meal. Chief farm imports were 70,000 tons of wheat in 1974.

U.S. agricultural exports to Senegal in 1975 had a total value of \$5.2 million, a sharp decline from the \$19.1 million value for 1974 when relief shipments to relieve the Sahel drought were heavy. Principal 1975 exports were rice valued at \$2.27 million; nonfat dry milk, \$329,000; corn-soy-milk blend and other blended foods, \$311,000; and food for relief, \$192,000.

U.S. agricultural imports from Senegal in 1975 consisted solely of "other flavoring extracts, non-alcoholic," valued at \$1.03 million. (*Snider W. Skinner*)

## SIERRA LEONE

Sierra Leone has a relatively fragile economy. The decline in the diamond industry, along with the high cost of petroleum imports, is causing severe balance of payments problems. Inflationary trends are affected by the close linkage of the Sierra Leone currency and economy to the British pound and economy.

### Agricultural Production

The Government of Sierra Leone is close to achieving one of its major objectives, self-sufficiency in rice. A bumper rice crop in 1975, plus carryover stocks from the 1974 crop and imports, seems to assure ample rice for consumers in Sierra Leone, at least for the year 1976.

The USDA indices of agricultural production show an index of 128 for 1975, or 7 percent above 1974 (1961-65=100). The country is reportedly self-sufficient in poultry and eggs. However, eggs cost \$1.40 a dozen.

### Agricultural Policy

In contrast to the usual pattern of small, hand-cultivated subsistence farms, several plans are underway for large plantations. An 18,000-acre coconut plantation will be located on the southern seaboard. An oil palm plantation will have 2,500 acres at first and will later be increased to 10,000 acres. A 5,000-acre sugarcane plantation and sugar mill are being planned and financed by the Chinese.

### Foreign Trade

U.S. exports of farm commodities to Sierra Leone in 1975 added up to \$5.5 million, less than half the \$12.5 million total for 1974. Major 1975 exports were wheat, worth \$3.0 million, and corn meal, valued at \$402,000.

U.S. agricultural imports from Sierra Leone amounted to \$4.2 million in 1974 and \$5.9 million in 1975. Largest imports in 1975 were coffee that was worth \$4.5 million; cocoa, \$944,000; and ginger, \$251,000. (*Snider W. Skinner*)

## SOMALIA

After several years of abnormally low rainfall, Somalia suffered a year of severe drought during 1974. This drought was particularly harsh on Somalia's nomads who constitute about three-quar-

ters of a population of some 3 million. To supply those hardest hit with basic foodstuffs, medicines, and other necessities, relief centers were established and kept in operation until mid-1975.

The northern areas suffered most, and rain-dependent crops were greatly reduced or had completely disappeared, as did the pastures. Livestock, the major source of Somalia's export income, was severely affected. By the beginning of 1975, the conditions had intensified until 12 of the country's 15 regions were declared drought-stricken areas. Only 3 southern coastal regions escaped the grip of the drought.

During 1974 and 1975, other nations and international agencies contributed funds and supplies of over \$43 million to assist the drought victims. Of the almost \$10.4 million of items contributed by the United States Government and U.S. voluntary agencies, more than \$6.6 million was provided in PL-480 Title II Food for Peace commodities. These supplies included some 10,000 tons of soy-fortified bulgur and 5,000 tons of sorghum.

If drought conditions do not recur, rain-dependent crops should return to normal during 1976. But several years will be needed before livestock numbers can again be built to predrought levels so as to sustain the nomadic population and provide an offtake for export.

#### Agricultural Production

Bananas are Somalia's principal cash crop and major source of foreign exchange. They are grown in areas near the Shebelle and Giuba (Juba) Rivers that were not too seriously affected by the drought. Nevertheless, production and exports have been dipping in recent years, despite an increase in area planted. Increasing soil salinity because of improper drainage and a failure to cull out and replace older plants have together caused yields to decline. Although improved management practices have been instituted, these were introduced too late to show improvement in the 1975 harvest. So production remains at about 130,000 tons.

Sugarcane production is carried on in the Giohar area, but it also has been subjected to salinity problems. Some 30 percent of the 7,000 hectares developed specifically for cane production is no longer usable because of the high salinity of the soil. In 1969 about 465,000 tons were produced which yielded nearly 47,000 tons of processed sugar. But production has steadily declined since then. In 1974 375,000 tons of cane yielded only 31,300 tons of processed sugar. The 1975 crop is estimated at approximately that same level.

Somalia's existing sugar factory at Giohar has an estimated annual capacity of between 30,000 and 35,000 tons, compared with a national consumption estimated at some 57,000 to 60,000 tons. To meet this demand, a new sugar refinery is being built in the lower Shebelle area, and the existing facilities are being extended. If production of cane can be sufficiently increased by the time the fac-

tory expansion is completed, Somalia could be self-sufficient in refined sugar with a possible surplus for export.

Rice was for years a minor crop. It attracted some attention during the sixties and appears to be emerging as a more important cereal. Domestic consumption amounts to some 30,000 tons, and some Somali-grown rice began appearing in the markets in 1974. But no figures are available for production. Plans are being made to have about 6,000 hectares (14,815 acres) planted to rice by 1978. Self-sufficiency may be more realistic for this crop than others.

In 1974 and 1975 corn and sorghum, Somalia's principal food grains, were hard-hit by the drought. In years of normal rainfall, Somalia is self-sufficient in these staples. But a total of only about 42,000 tons was produced in 1974, and only slightly more in 1975. During 1974 and 1975, large emergency imports of grains were needed.

In addition to the crops already mentioned, Somalia's more important crop production in favorable years includes cassava, beans, peanuts, sesame, cotton, tobacco, and grapefruit. But the output of all these items dwindled during the last 2 years. Because of the drought in not only Somalia but also in neighboring areas of Ethiopia, the water levels of Somalia's two important rivers dropped, and less water was available for irrigated and riverine agriculture. So, nearly all major crop yields were well below average. This greatly reduced 1974 overall output and seriously lowered total 1975 production.

The livestock industry, the backbone of Somalia's economy and one of its principal earners of foreign exchange, will take many years to fully recover from the effects of the drought. Midyear 1975 estimates are sufficient to indicate the tremendous losses this sector suffered. During July, on-the-spot observers estimated that there had been a million cattle deaths. Nearly 6 million sheep and goats died, and a half-million camels were lost. Most of the grazing land was so seriously affected that it has been reduced to desert land. Measures are now being intensified to improve the livestock industry.

In May 1975 the Government decided to resettle willing refugees in the Giuba and Shebelle River areas and along the coast where they could be trained to farm or to fish. By September 1975 about 110,000 of these refugees were brought to three resettlement areas to farm. Thousands of hectares of the virgin land had been reclaimed and cultivated by technicians and workmen for that purpose. It is hoped that by 1980 these new communities will be self-sufficient in food production and begin contributing to the national granary, possibly with some products for export. Only about 15,000 refu-



gees chose resettlement along the coast, probably because the Somali people are traditionally more interested in herding and farming than in fishing.

### Foreign Trade

Somalia's traditional agricultural exports have been livestock, livestock products, bananas, and other fresh fruit and vegetables.

Although the number of animals exported during the drought years drastically dropped, high prices kept earnings at about \$40 million in 1974. They were estimated at something just below that in 1975.

Bananas, Somalia's other large export crop, have been steadily dropping in recent years because of several production influences already mentioned. From an export of 133,000 tons in 1972, exports had dropped to 110,000 tons in 1974 and may have dropped a little more in 1975. The closure of the Suez Canal greatly reduced Somalia's traditional banana trade with Italy, which was replaced by increased trade with the Middle East. The reopening should allow Somalia to reclaim a larger share of the Italian market. Somalia earned \$12.3 million from the banana

trade in 1974, and preliminary estimates of the value of this trade for 1975 indicated no significant change. Agricultural items supplied to Somalia by the U.S. during 1975 included rice, sorghum, bulgur-wheat, corn-soya-milk and beans for food, and seeds for planting. All of these amounted in value to more than \$3.6 million.

### Outlook

In mid-1975, when ample rains soaked a better part of the country, Somalia was finally released from the worst drought in living memory. Many in Somalia had to begin life again, for 268,000 were in refugee camps and many others were dislocated. Entire herds had been wiped out, and half or more of all livestock had been lost. Many persons could not return to their original pastoral way of life because they had no livestock to support them, so they agreed to resettle. If successful, this resettlement venture will make settled productive farmers or fishermen out of nomadic herdsmen. Nevertheless, by the end of 1975 recovery was progressing, and with continued external assistance from many sources the country may emerge with a revitalized economy. (*H. Charles Treacle*)

## REPUBLIC OF SOUTH AFRICA

The contribution of agriculture to the gross domestic product is decreasing slowly. During 1972-74, the percentage of the total GDP made up by agricultural items averaged 8.9 percent. The mining and agricultural sectors were about equal in the late fifties. The mining sector has been growing rapidly, and during 1972-74 it contributed an average of 13.1 percent to the GDP. Manufacturing contributes about 22.7 percent.

Although in 1974 the real GNP increased at the exceptional rate of 7.2 percent over 1973, in 1975 the real GDP increased by only about 2 percent. Real GNP may have declined slightly because of an adverse turn in the terms of trade. This is mainly the result of lower gold prices. On September 22, 1975, the rand was devalued by 17.9 percent; 1 rand now equals \$1.15.

### Agricultural Production

Agricultural production in 1975 was down about 6 percent from the record year of 1974. Field crops were down about 8 percent from the 1974 record. Horticultural crops, overall, showed little change from 1974.

From 1969/70 through 1974/75, overall volume of agricultural production is estimated to have increased at about 2 percent per year. Although livestock product production increased at only a 1-

percent rate (red meat, no increase), field crops increased by 3 percent; corn, 7.2 percent; sugar, 4.3 percent; and horticultural products, 1.9 percent. Citrus increased by about 2.3 percent, and deciduous fruits, including grapes, climbed about 2.1 percent.

The gross value of livestock products increased rapidly from 1969/70 to 1974/75. The average yearly rate was 16.6 percent. Field crops increased by 12 percent, horticultural products by 11 percent, and total agricultural value by 13.7 percent.

### Prices

Agricultural prices have increased sharply in recent years. From 1969/70 to 1974/75, producer prices for all agricultural products increased at an average of 14.4 percent. Consumer food prices increased at an 11-percent rate. All consumer prices increased at an 8.5-percent rate.

In contrast, from 1966/67 to 1971/72, agricultural producer prices increased at only 1.8 percent per year, consumer food prices at 3.1 percent, and all consumer prices at 4 percent.

From 1969/70 to 1974/75 prices of farming requisites increased by 10.9 percent per year. Prices for all agricultural products increased by 13.9 percent. Corn and grain sorghum prices, however,

increased by 10.3 percent, or about the same as prices of farming requisites. The demand pull by exports played a part in price increases. For example, producer prices for corn (best grades) were retroactively increased by 14 percent for the 1974/75 season, by using earnings from corn exports made during that marketing year.

Producer price changes varied considerably in degree. The price patterns for several classes of agricultural products are shown in table 3.

Table 3--Average price increase per year for South Africa, 1969/70-1974/75

Commodity	Percentage increase
	<u>Percent</u>
Combined field, horticultural, and livestock products.....	14.4
Field crops.....	9.3
Corn and grain sorghum..	10.3
Sugarcane.....	9.6
Wheat, oats, rye, and barley.....	6.1
Horticultural products....	12.9
Vegetables.....	18.6
Fruit.....	10.1
Wine.....	8.1
Livestock products.....	18.9
Beef.....	21.0
Fresh milk.....	11.8
Poultry and products....	10.1

#### Inputs

South African agriculture may be increasing its intensity of resource use, because the value of productive goods used, such as fuel, feeds, and so forth, has increased sharply during the past 6 years. The total value used has increased 22 percent each year from 1969/70 through 1974/75, and fuel prices climbed by 16.3 percent. The value of feeds used increased by 20 percent, and feed prices by 9 percent. For fertilizers the increases were 16.7 percent for use and 8.7 percent for prices.

At constant prices, the estimated increase in the use of inputs was about 11 percent per year for feed, 8 percent for fertilizer and between 5 and 6 percent for fuel.

Gross capital formation related to tractors, machinery, and implements increased in value by about 8 percent per year from 1969 through 1974. Fixed improvements increased at a 9.8-percent rate. However, when changes in the inventory values of livestock are included, gross capital formation shows an increase of 18 percent per year.

*Prices of inputs.*—From 1969/70 through 1974/75, the average price increases per year were 10.9 percent for all farming requisites, 9.9 percent for machinery, tools, and implements, 16.3 percent for fuel, 9 percent for feeds, 8.7 percent for fertilizers, and 4.1 percent for land (1968/69-1973/74).

Fuel and fertilizer prices did not change much during the sixties. But since 1970, fuel prices have increased very rapidly.

#### Policy

A significant policy change is the bonus payment to corn and wheat producers from the stabilization funds of the marketing control boards. Corn farmers got Rand 7 per ton for deliveries during the 1974/75 (May-April) marketing season. This increased their returns from R50 to R57 per ton for the best grades delivered in bulk.

Wheat farmers got Rand 7.70 per ton for deliveries during the 1974/75 (October-September) year. This made the net price of BI wheat R98.90 per ton at producers' stations.

The fund for corn is now referred to as the Special Fund. It was established in 1953 from a part of the export profits during the previous year. It is supplemented from time to time from export profits and contributions from either producers, consumers, or the Government, according to a given situation. Previously the fund was mainly used to defray financial deficits resulting from losses on exports of corn or for other kinds of stabilization.

Because of favorable export prices and earnings in 1974, the Corn Special Fund on April 30, 1975, totaled R72.55 million, compared with the previous year's closing balance of R11.02 million. The R7 per ton payment reduced the Fund by about R69 million. Payments were meant to help farmers finance their next crops because of the unprecedented 22.7-percent increase in the prices of all farming requisites from 1973/74 to 1974/75 and because of the corn crop failure of the previous year.

Farmers feel that they are entitled to export profits. This implies that they are expecting a similar payment this year from the large export earnings of 1975. Even though the farmers want a



better return, Government policy is to keep consumer prices as low as possible.

## Foreign Trade

### Exports

Although the gross value of agricultural production increased by 13.7 percent per year from 1969/70 to 1974/75, the value of agricultural exports grew at a 24-percent annual rate. Agricultural exports were about 29 percent of the gross agricultural value in 1970/71; during 1973/74 they were worth about 38 percent.

Agriculture increased its positive contribution to South Africa's balance of trade in recent years. Agricultural exports were valued at R995.2 million during 1974, in contrast to agricultural imports valued at R111.9 million. During 1972-74 agricultural exports were worth more than 10 times as much as the agricultural imports. Agricultural exports made up about 33.3 percent of total export value (excluding gold bullion), and agricultural imports made up only 2.25 percent of total imports.

Major agricultural exports continue to be corn, sugar, fruit, and wool. Sugar export values increased an average of 44 percent per year from 1969 through 1974. The volume of sugar exports increased about 7.9 percent per year.

From 1969 through 1974, the average value of corn exports increased 41.5 percent a year. Volume increased about 12.2 percent. Corn export prices increased by 18.2 percent each year from 1969/70 through 1974/75.

Wool is another major export, and it showed rapid growth in the value of exports from 1969 through 1974. The average yearly increase was 26.5 percent.

From 1969 through 1974, the average value of deciduous fruit exports increased by 9.5 percent per year. Volume, from 1968/69 through 1973/74, increased by 5.4 percent per year. For citrus fruits, export values increased by about 7.5 percent per year, but volume decreased by about 0.8 percent. For preserved fruits, export values increased by about 16.6 percent.

So, from 1969 through 1974, the volume of total agricultural exports increased by 7.5 percent per year, field crops by 12.1 percent, horticultural products by 4.5 percent, and livestock products by only 3.1 percent. The 24-percent increase in value of exports during each of these years gives an indication of the price inflation in the agricultural export market. The unit value of total agricultural products exported increased by 19.5 percent per year, livestock products by 25 percent, field crops by 21 percent, and horticultural products by 7.7 percent.

*Current situation in agricultural exports.*—Exports of corn and sugar showed large increases and set new

records for value in 1974. Sugar was the highest valued agricultural export at R233 million. Estimates for 1975 indicate that sugar export value was down slightly, and corn exports increased to about R300 million. This would be about a fourth of total agricultural exports estimated for 1975.

For citrus fruits, both the quantity sold and proceeds from export sales were record highs. Fourteen percent of quantity went to the Middle East. Iran was a large buyer.

The quantity of deciduous fruit exported in 1975 by the Deciduous Fruit Board was 16 percent more than in 1974. Europe took 91 percent of all shipments, compared to 92 percent in 1973/74. Canned fruit exports were down. Wool demand was weak in 1974/75, but sales and prices are up for the 1975/76 season which began July 1, 1975.

### Imports

With import value estimated at R29 million, rice was the leading agricultural import in 1974. Other important imports are tea and coffee.

South Africa's rice consumption is based almost wholly on imports, since domestic production is not significant. From 1970 through 1973, consumption increased by about 3.9 percent per year on average. The United States supplies a large proportion of the rice imports. In FY 1974 the U.S. exports totaled 79,426 tons; in FY 1975 they were 65,184 tons. Total imports averaged about 84,600 tons in 1973 and 1974, and they were about 72,000 in 1975. Imports slowed during 1974 and 1975 because from 1969 through 1974 the cost of rice imports increased at a high rate of 23 percent per year, in terms of local currency.

### Outlook

With population increasing at about a 2.7-percent rate per year, the food production increase of 2.6 percent (averaged since 1969/70) will not be adequate to maintain the present large degree of self-sufficiency. Good agricultural land with adequate moisture supplies is becoming more scarce. Steps are being taken to reduce the loss of good agricultural lands to urban development.

More intensive use of land will mean relatively higher costs of production, particularly because of high energy prices. For example, producer prices for wheat, oats, rye, and barley increased by only about 6 percent per year from 1969/70 to 1974/75, considerably less than the cost of inputs. This may explain why the increases in wheat production seem to be slowing. The consumers of wheat (as well as consumers of some other products) enjoy a substantial subsidy.

Low domestic sugar prices have been made possible by large export earnings from sugar. But the percentage of production exported is decreasing. Domestic sugar prices are likely to be increased.

The farmers' demands to be paid the profits earned from the export of corn is a strong indication of pressures for higher prices for agriculture. (Lawrence A. Witucki)

## SUDAN

Sudan is the largest country in Africa. It has a population of only about 17 million with an annual growth rate of about 2.8 percent. The economy is dominated by the agricultural sector which provides over 40 percent of the gross national product, provides nearly all of the commodities for export, and employs between 70 and 85 percent of the labor force. The gross domestic product (GDP) in 1974 was about \$2.2 billion, making the Sudan's per capita GDP of about \$130 among the lowest in the world.

After several disappointing years in the early seventies, the last 2 years have had positive achievements, especially the rapidly increasing investment program. The Government is currently engaged in a vigorous effort to increase the economic growth rate, promote agricultural and industrial projects, expand the volume of exports, provide economic recovery for the southern part of the country, and generally improve the level of living. Large import needs have built up, partly because of inadequate investment in agriculture and an overall inadequate infrastructure. These inadequacies caused the need for food and other imports, which Sudan's President has recently pointed to as a "national disgrace," because much of the country is unoccupied or very sparsely populated. And although much of this underused land could be developed for agriculture, there is currently no population pressure on the presently developed land.

About 33 percent of the country can generally be classified as desert, waste, or urban land; 15 percent is forested; another 15 percent is grazed, and 37 percent can be classified as arable land of which only about 3 percent is currently cultivated.

Worldwide inflation has greatly increased the price of imports. The prices of cotton, gum arabic, and groundnuts, three of Sudan's larger exports, have all dropped. Seventy-million Sudanese pounds (1 Sudanese pound equals \$2.87) were originally earmarked for the Rahad irrigation project, the costs of which by January 1976 had inflated to 225,000,000 S. pounds, with no hope for relief. Nevertheless, the situation is improving. The infrastructure is being improved and agriculture developed, as more plans are implemented. The proximity of Sudan to nearby markets makes its location excellent for agricultural exports. After the October 1973 Middle East War, the food-importing Middle East countries began to step up investments

in Sudan, because it has about 40 percent of all the remaining undeveloped arable land in the Arab world, and it has great potential for the production of food. Since then Arab funding has greatly increased, and together with funds from outside the Arab world invested both before 1973 and since, a wide range of industrial and agricultural projects have been financed.

Many of these projects will help upgrade the overall economy and improve the level of living. Among these are projects for new schools, new roads, improvement of existing roads, improvement of bridges, the generation of more power, extension of transmission lines and microwave links, an oil pipeline from Port Sudan to Khartoum, improved river transport facilities, and improved port facilities.

Although the agricultural sector will benefit from these projects, it will more specifically benefit from many other projects which include the Rahad Irrigation Project begun in 1973; 6 sugar projects scheduled and designed to make Sudan self-sufficient by 1977 and an exporter by 1980; textile plants with supporting compounds that have housing, cafeterias, clinics, and food farms; improvement of the sesame output, of which Sudan is the world's largest exporter; rice pilot projects; mechanized farming projects; a fertilizer factory; leather tanneries; a feeder cattle ranch; and the often-considered Jonglei Canal. This canal would supply water for irrigating some 50,000 hectares (125,000 acres), drain a part of the Great Sudd Marshes to provide more cropland and pasture, and provide a direct waterway and 200-kilometer-long canal-side roadway north from Juba.

### Agricultural Production

In 1975 total agricultural output changed very little from 1974. However, there were shifts in the crops produced. Wheat production was down, but millet and dura (sorghum) output increased. Pulses and sesame were slightly up, and livestock showed little change.

The biggest drop was in cotton. The area of cotton planted in the Gezira was considerably reduced, and yields were reportedly lower. Some farmers grew other more profitable crops as internal policies may have been a disincentive for cotton production.



## Foreign Trade

In 1974 Sudan's total imports increased 62 percent over the 1973 total, and this trend continued into 1975. From July 1974 to March 1975, imports of sugar and other foodstuffs (excluding tea and coffee) were 3 percent above the figures for the fiscal year July 1973 to June 1974 and 109 percent more than the previous fiscal year.

Sudan's exports are almost totally agricultural. The leading items are cotton (which made up 36.4 percent of all exports), groundnuts (peanuts) (18.7 percent), sesame seed (13.2 percent), gum arabic (10.8 percent), and dura (2.8 percent). Sudan's balance of payments has been in deficit for the past several years. With less cotton to export and high prices for imported goods, this deficit will no doubt increase in 1976.

U.S. exports to Sudan have jumped from a modest \$6 million in 1971 to \$65 million in 1974 and to about \$90 million in 1975. Of these exports about \$30.8 million were agricultural, of which \$22 million were for wheat.

During 1975 the United States imported about \$2.5 million from Sudan, principally raw cotton. Small quantities of hides and skins, hair, gum arabic, and in some years, sesame seed are purchased from Sudan.

## Outlook

Sudan's agricultural potential and the current interest shown by investors make short- and long-term outlooks for agriculture appear very favorable. Nevertheless, political problems can always cause setbacks. And such factors as the weather, which reportedly is drier than usual, may reduce rain-dependent crop production in 1976. Also, such internal policies as the Government's deemphasis of cotton in favor of sugar, oilseeds, wheat, and livestock may become disincentives great enough to affect output. Diverse development problems are not unique, and these can make the transfer of technology a slow and costly process. (*H. Charles Treagle*)

## TANZANIA

Tanzania's gross domestic product is expected to grow little in real terms in 1976. The economy has been affected by the need to import large amounts of food and by the inflated prices of imports. Domestic inflation has been very high as well. Government expenditures have risen sharply in recent years. Petroleum costs have increased five-fold since 1973—to \$100 million.

The value of exports for the first half of 1975 was down 17 percent from 1974, and the trade deficit was about \$280 million, twice that of the same period in 1974, partly because of poorer terms of trade. The use of foreign exchange was severely cut. Butter and cheese imports from Kenya were stopped, for example.

The country has achieved a very high level of stability. Foreign assistance, much of it in grant form, has been increased, helping fulfill the country's great needs for development funds as well as for necessary consumption such as basic foods. However, the third 5-year development plan, scheduled to begin in July 1975, had to be postponed, probably until July 1976. U.S. assistance increased by about five times in 1975 and included large shipments of grain and projects involving grain production, ranching, and dairying.

About 93 percent of the population lives in rural areas. Agriculture makes up about 38 percent of the GDP and provides about 70 percent of the export earnings.

The country had been nearly self-sufficient in grains. But it has had to import over 900,000 tons, valued at \$240 million, during 1974 through September 1975. During 1974 and 1975, U.S. agricultural exports to Tanzania totaled about \$77 million (\$43 million in 1975), and of this, \$74 million was for grains and grain products including \$51.7 million for corn.

U.S. agricultural imports from Tanzania during 1975 totaled \$23.4 million. This included about \$18 million for coffee and \$2.6 million for pyrethrum flowers.

## Agricultural Production

Agricultural production in 1975 was up from the 1974 low, but it did not recover sufficiently to reach the 1972 level. In general, the weather was satisfactory.

Corn production recovered significantly from the 1974 low but was below domestic consumption. Some of the cotton acreage was shifted to corn. Coffee and cashew nut production also increased in 1975.

Sugar production reached a new high of 112,000 tons (raw). Increases have been recorded each year since 1972. Through 1974, sugar consumption had been increasing at about 6 percent each year. Per capita consumption was over 10 kilograms in 1974. In 1973 and 1974, more than 30,000 tons were imported.

In November 1974 the Government doubled the retail price of sugar to \$0.84 a kilogram, because foreign reserves were very low because of purchases of large quantities of food grains. Since sugar prices were rising sharply, the resultant decline in consumption led to a surplus and exports of 36,000 tons were planned for the first time in 1975/76. The long-term strategy is to become a large exporter by increasing production to 450,000 tons by 1980.

Cotton production dropped in 1975. The latest estimate is 43,500 tons. In August 1975 the Government announced higher prices for the 1976 season. New prices for cash crops were guaranteed minimum prices which could be changed according to the situation in the world economy. Cotton grade "AR" was increased from TSh1.75 to TSh2.00 a kilogram (U.S. \$1.00 equaled T.Shs 7.14 before October 27, 1975, and T.Shs 8.16 since then).

Domestic requirements of cooking oil were estimated at 36,000 tons during 1975. Production was estimated at 26,000. Through August, 3,300 tons had been imported at a cost of \$2.74 million.

### Agricultural Policy

The new "Ujamaa" village scheme is a movement of rural people into villages. Such services as education, agricultural extension, medical care, water, and nutrition would be communally available.

The program was started by President Nyerere in 1967. The big push for it began late in 1973. In 1974, 5 million people moved. Some observers feel that the Government coerced farmers into accepting life in these villages, but others say that such abuses were contrary to the scheme and have largely been corrected.

Services could be provided more efficiently to people grouped into villages in contrast to people living separately in the countryside. But the effectiveness of the villages in serving agricultural production is still an issue.

Opponents of the village program claim that this program has disrupted agricultural production. Supporters of villagization claim that the poor food supply situation of 1974 was the result of the drought in 1973 and 1974.

In June 1975 about 9.1 million people, or 65 percent of the rural population of 14 million, were living in some 6,944 villages. The Government

expects that all rural people will be living in villages by 1977.

The National Conference of the Tanganyika African National Union (TANU), the only political party in mainland Tanzania, met in September 1975. It passed some resolutions in regard to agricultural policy.

*Livestock.*—Herdsmen were asked to sell a tenth of their herds every year by culling more animals which are not needed for good animal husbandry. More than 90 percent of the cattle are raised by small herdsmen.

The present method of selling by auction was considered more profitable to the buyers than to the herdsmen. It was ordered that sales be made by weight and that the scales be checked so that the Government-established prices are followed.

The Government and public corporations are to have plans to distribute cattle to areas that are short in supply "... to eliminate the shortage of meat and milk ..." This would also reduce erosion of land in areas with much livestock.

The Livestock Development Authority, a wholly-owned Government enterprise, was established in 1974. Its purpose is to control, promote, and develop the production, marketing, and distribution of all livestock and livestock products including dairy and poultry.

*Cropping enterprises.*—In areas that receive between 15 and 30 inches of annual rainfall, farmers are urged to concentrate on millet and sorghum. Corn is recommended in areas that receive 40 inches or more of rain.

*Fertilizers.*—At the end of 1975, some 90,000 tons of subsidized fertilizers were transported to the various regions for the new crop season. In October the Party called for the education of farmers in the use of animal manures and other natural fertilizers so that heavy reliance on commercial fertilizers would not be needed. In 1974, fertilizer consumption was estimated at 86,000 tons; about 60,000 tons were produced domestically.

### Outlook

The economy should improve in 1976. Recovery is tied to self-sufficiency in food production and increased production and earnings from cash-crop exports. The Government intends to invest more in agriculture and to encourage more efficient use of public resources. (Lawrence A. Witucki)

## TUNISIA

The Tunisian economy performed well in 1975. Estimated real gross domestic product rose about 9 percent, led by manufacturing, construction, and

tourism. Performance was not so good as in 1974, mainly because of decreases in phosphate and petroleum revenues. A record year in tourism and



continued concessional capital inflows were enough to maintain foreign exchange reserves, despite a trade deficit of \$570 million.

### Agricultural Production

The possibility of crop failures because of the lack of rain during the early part of the 1974/75 winter vanished when adequate rains came later in the season. Production of wheat and barley was second only to that of 1972. Total cereal production was about 1.1 million tons. The 1974/75 olive harvest was down, but the oil content was unusually high; olive oil production reached 117,000 tons. Wine, citrus fruit, tomatoes, and potatoes all showed production increases and helped bring the index of agricultural production to a record 215 (1961-65=100). Per capita food production also reached a record index of 163. Early results indicate that the 1975/76 olive oil harvest will be a near record of 160,000 tons.

Even though the Government of Tunisia reduced the subsidy on wheat-based foods by 18 percent, wheat prices were still below world prices. Subsidies on sugar and vegetable oil were also reduced. With these subsidies, the Government assures access to the basic foods by even the lowest income groups and limits the inflationary pressure on the wage structure.

### Foreign Trade

Foreign exchange earnings were reduced because of a 25-percent increase in imports (mainly capital goods and semifinished industrial goods) combined with a 10-percent decrease in exports. Exports of phosphates, petroleum, and olive oil declined.

Exports were valued at \$821 million in 1975. The main agricultural items were olive oil, wine, citrus fruit, and alfa pulp; these totaled about \$85 million. Exports of olive oil declined precipitously, because Italy raised the threshold price for imported oil. Tunisia exported 93,000 tons of olive oil, including about 3,000 tons of sulphur oil, in 1974 (64,000 tons were sent to Italy). Less oil was available for export in 1975 because of the 10-percent decline in production. Nevertheless, the Italian restrictions caused a glut of oil that filled storage facilities, so Tunisia sought other markets.

The trade accord negotiated with the European Community early in 1976 will reduce the EC's import duty on olive oil by 0.5 units of account (one unit of account in early 1976 was valued at \$1.25). Tunisia also will receive an 80-percent tariff reduction on table wines and a duty-free quota of 50,000 hectoliters on bottled quality wines. An 80-percent tariff reduction will also be granted on citrus. Concessions will also be made on Tunisian fruits and vegetables. Special trade arrangements with France under Protocol 1/7 will coexist with the new provisions until January 1, 1979.

Tunisian imports reached a record of \$1,394 million in 1975. The important agricultural commodities were wheat (valued at \$50 million), sugar (\$40 million), dairy products (\$16 million), meat (\$13 million), and soybean oil (\$32 million).

U.S. exports to Tunisia in 1975 totaled \$90 million. Agricultural commodities accounted for \$43 million. Largest agricultural items were 182,000 tons of wheat (\$27 million); 23,000 tons of soybean oil (\$8.2 million); 42,000 tons of corn (\$5 million); and wheat flour (\$1.7 million).

U.S. imports from Tunisia totaled \$26 million with agricultural commodities accounting for \$1.4 million. Most of this was olive oil (\$1.3 million). (*Herbert H. Steiner*)

## ZAIRE

Reduced foreign exchange earnings and dwindling Government revenues brought about by the lower copper prices in 1975 seriously hampered Zaire's ambitious development program. Production of almost 500,000 tons of copper was about the same as in 1974, but the copper earnings slumped by more than 30 percent. Copper accounts for nearly two-thirds of Zaire's foreign exchange and provides between a third and a half of the Government's revenue. Import restrictions resulting from a rising balance of payments deficit caused shortages of many types of imported goods including such foodstuffs as rice, meat, canned tomatoes, and

powdered milk. Higher prices of imported capital goods raised the cost of the Inga hydroelectric project and the Inga-Shaba power line, leaving less money for other investments. The consumer price index rose by 24 percent. The International Monetary Fund proposed stringent austerity to stabilize the economy and slow inflation.

### Agricultural Production

Much of the rural population produces only enough for its own sustenance. The development programs to increase the commercial production of

corn and rice are just beginning to have an impact. Disease cut the yields of manioc (cassava) which is the most important food crop. Zaire produces only a small fraction of its potential.

Production is actually declining for such commercial crops as palm oil, coffee, and cotton. The plantations and commercial farms did not recover from takeover under the Zairianization programs. Cotton producers cannot get the cotton to the gins because of shortage of gasoline and trucks. Many gins are out of order because of a lack of spare parts. Fertilizer, machinery, and spare parts for machinery are scarce. Such conditions have discouraged commercial production of crops.

### Agricultural Policy

The Government of Zaire announced in January 1976 that 40 percent of the ownership would be returned to the former foreign owners of 83 firms expropriated under the Zairianization program. This was an attempt to recover some of the foreign expertise that had been lost when the firms were expropriated. Many of the Zairians who accepted plantations and businesses failed to take care of them because they were not experienced in management.

Although the Government has repeatedly stated that agriculture has priority, a comprehensive agricultural policy has not been established. Producer prices of most agricultural products are too low to encourage the much-needed production for the market; the Government has not paid any subsidies. The recent action of the National Cereals Office (ONACER) in raising the minimum producer price for corn from \$80 to \$150 per ton is an attempt to provide more incentive to corn producers. Other measures to promote more production are a 40-percent increase in the agricultural budget allocation and salary increases for agricultural field workers.

Of the 10 agricultural offices responsible for production and marketing of the main crops, the only ones operating are the cotton office (ONAFITEX), the sugar office (ONDS), the cereals office (ONACER), and the livestock office (ONDE).

### Foreign Trade

Exports were an estimated \$850 million in 1975, compared to \$1,283 million in 1974. Zaire exported 53,000 tons of palm oil, 58,000 tons of coffee, 28,600 tons of palm kernel oil, 31,000 tons of palm kernel cake, 5,300 tons of cocoa beans, 4,700 tons of tea, 927 tons of cotton, and 30,000 tons of natural rubber. Other agricultural exports were pyrethrum, Congo jute (*Urena-Punga*), papaine, *Rauwolfia*, and copal. Agricultural exports were valued at about \$100 million.

Imports in 1975 were valued at approximately \$1.0 billion, 36 percent of which was accounted for by foodstuffs. The MIDEMA mill at Matadi received 90,046 tons of hard winter No. 2 wheat (12.5 percent protein) from the United States. Except for small amounts of special types of flour, the importation of wheat flour into Zaire is now prohibited since the Matadi mill can meet domestic demand. Another 12,000 tons of wheat were imported from other sources.

About 200,000 tons of corn were imported in 1975, mainly to feed the urban population in the Lubumbashi mining area. Malt imports declined to 45,000 tons because of the foreign exchange pinch. Since beer is so important in the diet, malt will continue to be an import. Only 10,000 tons of rice were imported, all of it from the People's Republic of China. Other agricultural imports were meat, dairy products, canned tomatoes, and tobacco.

U.S. exports to Zaire in 1975 totaled \$187 million. Agricultural commodities accounted for \$18 million; almost all of this was wheat. U.S. imports from Zaire were valued at \$64 million; agricultural imports accounted for \$24.6 million, mostly coffee (18,000 tons worth \$20.4 million), palm kernel oil (1,500 tons worth \$1.3 million), and natural rubber (2,500 tons worth \$1.1 million).

Purchases of U.S. rice, wheat, and leaf tobacco should be boosted in 1976 by a \$15 million line of credit from USDA's Commodity Credit Corporation. Zaire will also receive 27,000 tons of wheat valued at \$8 million under P.L. 480, Title I. (*Herbert H. Steiner*)

## ZAMBIA

The economy did very poorly in 1975. Final estimates may show that real gross domestic product declined. The large trade surpluses during 1973 and 1974 of about K400 million (1 Kwacha equals \$1.56) eroded to a negative balance as copper prices dropped about 60 percent. Copper production costs are reported as higher than revenues. Import prices continued to inflate. Foreign exchange reserves are now very tight, and controls have been increased.

Copper has in recent years accounted for 40 percent of the GDP and 90 percent of the exports. Although the Government is broadening the tax base to get more revenue from sources other than copper, both recurrent and capital expenditures will be reduced in 1976. Transportation difficulties increased during the year, particularly with the closing of the Benguela Railway through southern Angola, but transportation should improve in 1976



when the TanZam Railway is fully operating. Zambia is working to establish closer transportation links with Malawi and Mozambique.

Agricultural production also declined in 1975. Although 70 percent of the population is engaged in this sector, agriculture has been making up less than 10 percent of the GDP. Price policies have generally discouraged agricultural enterprises, and urban food consumption has been subsidized.

Recently the Government increased the priority for agriculture. But price increases for the 1974/75 planting season were not sufficient in most cases to cause a noticeable production response. Food subsidies were reduced by as much as 60 percent on June 30, 1975.

### Agricultural Production

**Corn.**—Although showing an upward trend, corn production is very erratic and the 1975 crop with commercial deliveries of 460,000 tons was 18 percent below 1974. Exceptionally prolonged and heavy rains prevented many from planting during the planting season of December and January. Prices played a part, since there was some switching of corn land into sunflower and other crops. The 16.3-percent price increase to 5 Kwacha per 90-kilogram bag was not sufficient to increase corn plantings.

With the increase in the producer price early in 1975 and the maintenance of a stable, subsidized retail meal price since independence, it is now economical for small producers to sell their corn to the National Agricultural Marketing Board (NAMB) and to buy meal at the low, subsidized price. Although yearly purchases from the Board have been increasing at 7 or 8 percent, during 1975 they increased by about 15 percent. Because of low stocks and the lower than anticipated harvest, it is probable that imports will be needed in 1976.

**Wheat.**—About 1,000 tons of wheat was produced in 1975, the first time since independence. About 400 hectares were harvested—all from irrigated land. The producer price for the 1975 crop was K16.00 per 90-kilogram bag.

Wheat imports reached a new high of about 125,000 tons, equal to the milling capacity of the country. Not all purchases may have reached their destination, because long delays have occurred between a shipment's arrival at the nearest seaport and transporting inland to Zambia. Since flour consumption outstripped domestic milling capacity, 2,000 tons of wheat flour were imported for the first time.

**Sorghum and millet.**—The level of production of these grains is not definitely known. The Ministry of Agriculture believes that since the early seventies sorghum production has declined and that of

millet has not changed much. Both crops are widely used in local beer brewing.

**Rice.**—Production reached 1,000 tons of paddy. Imports of about 3,000 tons per year, mainly from Malawi, continue. In 1976, production may exceed 1,500 tons of paddy.

**Sugar.**—Sugar was the brightest spot in Zambian agriculture. Production jumped by about 33 percent to 90,000 tons of raw sugar. Consumption needs were exceeded for the first time.

According to the Zambia Sugar Company, 768,153 tons of cane were crushed. The cane is grown under irrigation on the estate at Mazabuka. Of the 9,500 hectares under irrigation in Zambia, cane is grown on about 8,500. Consumption of sugar is estimated at 83,000 tons and has been increasing by 8 to 10 percent each year. New cane acreage will be maturing and production in 1976 may reach 100,000 tons. Consumption may be exceeded by 10,000 tons.

**Tobacco.**—Sales of Virginia flue-cured tobacco increased about 5 percent to 6,500 tons. The 7,730 hectares harvested were 20 percent more than in 1974. But total sales value declined by about 15 percent. A Government subsidy of 4.41 ngwee (100 ngwee per Kwacha) per pound was needed to bring the average auction price up to the guaranteed 41 ngwee level.

Flue-cured production in 1976 is expected to be about 8 percent above that of 1975, but the burley crop will be down to about 400 tons. Oriental production is being started again this year by smallholders having about 1 acre each. Total area is considered to be about 100 acres.

**Sunflowerseed.**—Production jumped from about 3,500 tons in 1974 to 9,600 last year because of the 5-percent price increase to K9.40 per 50 kilograms. The harvested seed awaited the opening of a new oilseed crushing plant in April. This increases Zambia's daily crushing capacity from 10 to 100 tons. In 1976 production could top 10,000 tons. Prices have not been changed for the 1976 crop.

**Peanuts.**—NAMB purchased about 5,000 tons in the shell in 1975. But some sources indicate that some 30,000 tons of confectionary peanuts and several thousand tons of peanuts for oil are produced but not sold to the Board. The confectionary peanuts are shipped to Malawi, the others are crushed for oil internally.

A new blight began to appear in the crop in 1975, the same one now prevalent in most eastern and southern African countries. Production may decline if new, resistant varieties are not introduced.

**Soybeans.**—Production has been carried on by a small number of commercial farmers. Last year's production is estimated at about 700 tons, up by about 300 tons over 1974. The price of K13.20 per

90 kilograms was not changed last year and remains the same for 1976.

Production is expected to increase to 1,000 tons or more in 1976. The Government has a program for 5,000 hectares to be planted by a parastatal organization. Clearing of the land is scheduled to start after the rains end, and in November planting is to begin.

*Livestock.*—It is reported that purchases for slaughter by the Cold Storage Board declined by 25 percent during 1975. Increased costs of production during 1974 and 1975 more than offset the 20 percent increase in producer prices authorized early in 1974. Many farmers began selling their cattle directly to local butchers who paid cash and a higher price than the Cold Storage Board.

Total swine slaughter is estimated at 15 percent above that for 1974. Producer prices were increased 30 percent early in 1975.

Dairy production declined again in 1975. More farmers sold their herds for beef because of the low milk price compared to the cost of production. About 90 percent of the fluid milk consumed is from powder imported from New Zealand and the Netherlands. It is then reconstituted.

*Fertilizers.*—A significant decline in the costs of imported fertilizers was realized late in 1975. Perhaps this was unique for an imported item. Although the NAMB paid K26.8 million for 121,000 tons for the 1974/75 planting season, imports of 185,470 tons late in 1975 cost 42 percent less per ton. In addition to these, a plant in Zambia produces 10,000 tons of compounded product each year.

### Foreign Trade

Agricultural exports are very small. Agricultural import costs have become high. In 1973 they were about \$42 million; in 1974, about \$80 million. Imports include wheat, vegetable oils, beef, milk powder, rice, and cotton.

Agricultural trade with the United States is very small. U.S. agricultural exports to Zambia in 1975 were worth about \$360,000. Agricultural imports from Zambia were almost nonexistent.

### Outlook

*Corn.*—An early estimate of the 1976 corn crop is that 425,000 tons will be produced. The rains were late and sporadic during December and early in January, the normal planting season. Although producer prices were increased by 26 percent to K6.30 per 90-kilogram bag, they were announced too late for many farmers to plant additional acreage. The area harvested is therefore expected to be the same as last year, and yields may be lower. Imports of 200,000 tons may be needed before the 1977 harvest beginning in May of that year.

*Wheat.*—A small increase in irrigated area and planting of 1,000 hectares or so of dryland wheat is expected. The latter increase is because of a Canadian aid project in southwestern Zambia where a trial plot was planted in December. Many Mexican varieties will be planted for the first time in 1976. Since total needs are estimated at about 140,000 tons, imports will exceed those of last year, including those of flour.

A project is under study to irrigate 20,000 hectares for wheat in the Copperbelt. The German Government would participate.

*Livestock.*—Imports of beef were banned late in 1975. Early in 1976 retail prices increased by 15 to 25 percent. Since the official retail prices were not gazetted, the increases are legal. Prices offered for slaughter stock have increased. This is expected to result in a decline in beef cattle numbers. Swine numbers and slaughter are expected to increase.

Early in 1976 producer prices for milk were increased by 36.4 percent from 11 to 15 ngwee per liter. Production is expected to remain at the 1975 level with no anticipated increase in dairy cattle numbers. (*Lawrence A. Witucki*)

## WEST ASIA

### BAHRAIN

Concorde jets now fly on scheduled airline flights from London to Bahrain's modern airport. This activity is one indicator of the way businessmen in Bahrain have moved to more sophisticated services and to a more specialized wholesale trade. Most neighboring countries now import

food directly, and purchases from wholesalers in Bahrain have become less important.

Petroleum extraction is declining in Bahrain, but through the use of imported materials the output of refined petroleum products is rising. Aluminum production is the most important industry



on the island after petroleum refining, and it increased 12 percent in 1975. Output by a commercial wheat flour mill reached 18,000 tons in 1975. About 80 percent of the wheat is imported from Australia and 20 percent from the United States.

About 22,000 tons of vegetables are produced annually, including considerable supplies of tomatoes, cucumbers, potatoes, and squash. Increasing salinity and the high cost of good water for irrigation have limited production. About 30 percent of the vegetables and tropical fruits consumed on the island are produced locally.

### Foreign Trade

Petroleum products, aluminum, and shrimp are Bahrain's leading exports. Total exports increased from \$386 million in 1973 to \$1,164 million in 1974. Total imports rose from \$322 million to \$446 million. Exports increased about 3 percent in 1975, and imports increased more than 40 percent. Bahrain also earns foreign exchange through tourism, trade, and services.

In 1975 Iran experienced its best agricultural year to date. Wheat production was a record. Barley production increased by 19 percent. Corn and sorghum plantings were increased in response to the country's feed demand. The rice crop was up about 7 percent; demand was double that. Cotton production declined 35 percent because of lower prices as well as competition from increased plantings of soybeans. Soybean production is in its second year and reached 70,000 tons, double 1974.

Overall production of agricultural products increased by 14 percent to an index of 167 (1961-65=100). Per capita agriculture increased to 116 percent of the base.

Iran's economic boom slowed significantly in 1975 following a record growth in real gross national product of 42 percent in 1974. The increase in 1975 is estimated at 6.5 percent. The slowdown was caused mainly by decreased oil revenues.

Inflationary pressures sparked a Government antiprofitteering campaign price controls, and increasing food subsidies.

### Agricultural Production

*Major crops.*—Wheat output for 1975 is estimated at 4.9 million tons, 32 percent above a disap-

Imports of rice and sugar are restricted to a single firm in which the Government holds a 10-percent share. Food imports enter duty-free. Imports of fresh produce from Pakistan and India increased markedly as arrivals from Lebanon and Iran declined.

Agricultural imports increased from \$48 million in 1973 to about \$87 million in 1974 and topped \$100 million in 1975. Rice imports have exceeded 28,000 tons in most recent years, and most of the supplies have come from Pakistan.

U.S. exports of farm products remained about \$3 million in 1975. Larger exports of processed foods helped offset smaller deliveries of rice.

### Outlook

Much larger imports of Indian onions, potatoes, fresh fruit, and oilseed products arrived early in 1976. Deliveries of Australian wheat, dairy products, and meat are rising. U.S. sales of processed food are on the upswing. Total food imports might reach \$150 million in 1976. (*John B. Parker*)

## IRAN<sup>1</sup>

pointing crop of 1974. This harvest was a record, mainly because weather was favorable in major wheat growing regions of Azarbaijan, Fars, and Kermanshah. Also increased guaranteed prices for wheat encouraged farmers to plant more. Production of barley was 950,000 tons, up 19 percent because of favorable growing conditions. Corn and sorghum production is increasing gradually. Total output of corn is about 80,000 tons and sorghum 12,000 tons.

Rice output is estimated at 750,000 tons, up about 7 percent over 1974. Planted rice area is estimated at 310,000 hectares. Increasingly, high-yielding varieties of rice (Mehr and Amol I) are being used.

Despite record feed and food grain output, Iran's demand for these commodities increased faster because of increasing population and rising income levels. Consequently, domestic demand had to be supplemented by greater imports.

Cotton output for 1975 was down by 35 percent to 150,000 tons. Lower cotton prices and higher production costs caused this decline. Cotton acreage was down 28 percent at 265,000 hectares. Dry weather and some drought in Gorgan and Gonbad reduced yields. Simultaneously, domestic cotton consumption continues to increase at a rate of 7 to 10 percent annually. Exports of cotton during Iran year (IY) 1974/75 (March 21-March 20) were at 100,156 tons, down 30 percent from the previous marketing period. This reflected reduced production, increasing domestic use, and declining

<sup>1</sup>Agricultural production and other statistics in this section may differ from those of the Iranian Ministry of Agriculture and Natural Resources.

stocks. Major recipients were West Germany, USSR, and France.

Sugar production was estimated at 685,000 tons, an increase of only 5 percent over 1974. Sugar consumption in Iran is increasing by 10 percent, and yearly per capita consumption has reached 28 kilos (61.7 lbs). In addition, the proportion of sugar for industrial use is expanding. Sugarbeet production continues largely on a small-farmer enterprise base. About 31 sugarbeet factories are in Iran, both private and Government owned. Sugarcane production is nearly all from one large agribusiness in the south (Haft-Tapeh). With consumption rising so rapidly, imports continue to increase. Estimated imports for IY 1974/75 were 220,000 tons and for IY 1975/76, 300,000 tons.

**Other crops.**—Pulse production (beans, chick-peas, lentils, peas, and mungbeans) was estimated at 180,000 tons for 1975, 17 percent above 1974. Consumption is probably growing more than domestic production, and some imports may be needed.

Iran produces a variety of fresh fruits, and consumption is increasing with the growing affluence of the society. Small industries produce dates, raisins, and dried apricots, and more than 20 percent of these are for export. Estimated export sales for IY 1975/76 include 8,400 tons of dried apricots, 40,000 tons of raisins, and 35,000 tons of dates.

Production of pistachio nuts, almonds, and walnuts in 1975 was 35 percent lower than in 1974. About 40 percent of these crops were exported.

**Livestock.**—Iran continues its efforts to improve the livestock sector. Crossbreeding of sheep, improving feedlot operations, and importing sheep and dairy animals are factors improving the productivity of the animal sector. Red meat and poultry production make up about 40 percent of the earnings of the farm sector. Approximately 39,000 dairy animals in Iran produce about 6 percent of about 2 million tons of milk. The rest of the milk output is produced by village and tribal sheep, goats, and native cows. This production is used largely for yogurt and cheese.

In 1975, Iran purchased about 10,000 head of largely high-grade dairy stock. Approximately 70 percent were imported from the United States. Originally 200,000 dairy breeding animals were to be imported during the 5-year development plan. Long-term goals have been revised so that plans now call for 300,000 head during an 11-year period and 600,000 animals in 20 years. Iran is also importing bulls and bull semen and these imports are likely to increase.

Meat production from native cattle and some buffalo was about 60,000 tons in 1975. Some feedlots are being constructed to finish-off native cattle, but greater emphasis is being placed on devel-

opment of dairy animals. The most dramatic increase is output in the poultry sector. Current production of poultry meat is estimated at 115,000 tons with some 110,000 tons of eggs. Production is growing at about 20 percent each year.

### Agricultural Policy

The revised Five-Year Development Plan has allocated \$4.5 billion toward agricultural development and projects an annual growth rate of 7 percent. The livestock sector is projected to grow at 8.3 percent, and food processing at 11 percent. The investment in agriculture is almost 6 times what it was in the previous plan (1968-72).

Agricultural policy aims toward improving the enterprises of the largely peasant farmers. The Ministry of Cooperatives has the task of raising productivity and improving living standards for most of Iran's rural population whose per capita income averages \$300 or less. The national average per capita income is now reaching \$1,500. In the rural areas, the Government hopes to provide training programs at all levels of agriculture and related activities and to provide employment in rural industries for village people not holding any land.

Efforts are underway to consolidate agricultural areas into efficient economic cooperative units by creating farming units of no less than 20 hectares. The goal is to have 12 percent of crop land in consolidated cooperative enterprises, 8 percent in large agribusinesses, 30 percent in various types of commercial farms, and 50 percent in individual farms served to some extent by cooperatives.

Iran hopes to achieve 80 percent self-sufficiency in agriculture by the end of the Plan, but with a 3 percent population growth and overall food demand increasing by 8 to 10 percent annually, this is a difficult goal. The Plan also calls for expanding grain storage facilities from the present 700,000 tons to 2 million tons and eventually to 3 million tons.

The Government continues to use subsidies as a means to hold down prices of consumer goods as well as provide adequate returns for the producers. The Government subsidizes wheat and bread, sugar, mutton, poultry, eggs, and dairy products, and it maintains fixed prices for those products to the consumer. For the producer, the Government sets guaranteed prices for wheat, barley, corn, oilseeds, meat, milk, poultry, and eggs. Certain farming inputs, such as corn, barley, protein meals, seed, and fertilizer are also subsidized.

### Foreign Trade

Iran's agricultural imports tripled in IY 1974/75. The major items were wheat, rice, corn, barley, soybean oil, tallow, and livestock. Iran's total agricul-



tural imports in IY 1974/75 totaled about \$1.28 billion, approximately 18 percent of total imports excluding arms and defense items. Of this share, items from the United States accounted for about 55 percent. The major items were grains and cereals, valued at \$523 million; animal and vegetable oils and fats, \$227 million; sugar products, \$143 million; fruits and nuts, \$80 million; and dairy, poultry products, and honey, \$69 million.

Agricultural imports and imports in general are expected to be down in 1975/76. Import expansion was slowed by the very large imports of the previous year, causing continued port congestion, larger carryover stocks, some budgetary constraints, and an improvement in local grain production. Imports of live animals, meat and poultry, dairy products, and processed foods continued to increase.

Iranian agricultural exports for 1974/75 declined by 26 percent. Total exports (excluding oil and gas) were \$581 million, of which agriculture comprised 43 percent. The major agricultural exports were cotton (\$87 million) and fruits and nuts (\$72 million).

U.S. agricultural exports to Iran totaled \$423 million in 1975, down 21 percent from the previous year. This decline followed a quintupling of U.S. sales to Iran in 1974. The major items were wheat,

valued at \$138 million, down 47 percent from last year; rice, \$166 million, up 58 percent; corn, \$8.2 million, down 51 percent; and soybean oil, \$50 million, down 50 percent. The outlook for U.S. exports to Iran is for a leveling-off period in the near future with an upward trend as Iran's port congestion clears and the economic situation stabilizes.

U.S. agricultural imports from Iran in 1975 were worth \$62 million, a slight decline from the previous year. The leading items were sheepskins, cashmere wool, dates, and pistachios.

### Outlook

Outlook for the 1976 crop is favorable. Production of barley and sugarbeets may remain about the same. Wheat production has been projected at 4.9 million tons, and cotton plantings up by 30 percent to 350,000 hectares. The livestock sector is expected to continue its progress with the development of new dairies, feedlots, and poultry operations. Total agricultural output should increase in IY 1976/77 but perhaps not at the projected 7 percent rate. Imports for IY 1976/77 should increase, especially as port congestion clears and other infrastructural problems are alleviated. Feed grain, wheat, rice, dairy animals for breeding, and vegetable oil imports should be up. (*Michael E. Kurtzig*)

## IRAQ

Petroleum revenues increased from \$7 billion in 1974 to more than \$9 billion in 1975. Increased output from oil wells in southern Iraq allowed the volume of exported crude petroleum to rise.

Government projects to develop a more modern infrastructure created many new jobs. Sales of U.S. machinery and equipment soared in the last 2 years to more than \$300 million annually. More rewarding opportunities in cities left fewer people and less capital in agriculture.

### Agriculture Production

Total agricultural production declined 16 percent in 1975, and prospects for a rebound in 1976 are not promising. Many farmers have taken nonfarm jobs, and the area planted in grain has remained below the 1972 level. The 1975 wheat harvest declined 36 percent because of inadequate winter rains and military operations in northern Iraq. The smaller crop of only 860,000 tons left very little surplus for delivery to Baghdad and Basra. But large stocks of imported wheat were available. These stocks have dwindled. And the 1976 wheat crop may be far below expectations.

Barley production during the last 3 years remained far below the 1972 level of 1 million tons. Elaborate programs to boost feed output and poultry production are scheduled to furnish incentive to bolster barley output in the future.

Imports of grain combines have been made as part of programs to improve the harvesting efficiency. Labor for rice harvesting has been a problem in recent years. Many construction projects and various opportunities related to Government spending of petroleum revenues provided more rewarding employment opportunities than farm labor.

Rice production declined from 268,000 tons of paddy in 1972 to only 169,000 tons in 1974, and remained at low levels in 1975. Irrigation water from the Euphrates River has not been adequate in the last 3 years at times when it was desperately needed for rice. Salinity has also been a problem.

Shortages in production of potatoes, onions, and fresh vegetables for major cities caused Iraq to seek larger imports of these products. Foreign firms have been awarded contracts to develop large State farms to produce vegetables. One American company will develop 50,000 hectares north of Bag-

head and build a cannery to preserve output which might exceed seasonal fresh market needs.

Some vegetable crops have gained in importance because of excellent market prices and guaranteed Government purchases when marketing opportunities were not satisfactory. Iraq now produces about 2.5 million tons of vegetables. Watermelons and tomatoes are leading products, and production is more than 300,000 tons for each. A major new program to boost potato production is underway. Cauliflower output is rising.

Programs to increase date production include subsidies for fertilizer and sprinkler irrigation systems. Total date production increased slightly in 1975 to about 380,000 tons. New apple and peach orchards have been planted north of Mosu.

### Foreign Trade

Total exports increased from \$2.4 billion in 1973 to \$8.3 billion in 1974 and surpassed \$9 billion in 1975. Imports exceeded \$5 billion in 1975, up from the \$2.3 billion in 1974 and less than \$1 billion in 1973. Purchases of American jet aircraft, port handling equipment, and rice soared in 1975.

Total agricultural imports jumped from \$301 million in 1973 to about \$830 million in 1975 because of much larger imports of rice, sugar, wheat, and meat. New food import policies are causing further gains in agricultural imports. Imports are becoming more diversified. Problems in making connections with trading agencies in Beirut have caused more import contracts to be made in Baghdad.

A tender for 30,000 tons of frozen poultry was given to American firms in March 1976 when U.S. trade representatives visited Baghdad. The value of their shipments of frozen poultry to Iraq in 1976 could be about \$30 million.

New sales of frozen poultry, wheat, seeds, soybeans, tobacco, and possibly tallow should bolster the value of U.S. agricultural exports to Iraq in

1976. The value declined from a record \$114.8 million in 1974 to \$86 million in 1975.

The United States supplied about two-thirds of Iraq's 900,000 tons of wheat imports in 1974. Wheat imports fell below 600,000 tons in 1975. U.S. exports of wheat to Iraq declined from 575,000 tons in 1974 to 80,000 tons in 1975. Iraq recently bought 65,000 tons of Canadian wheat, and about 100,000 tons of U.S. wheat arrived early in 1976. Total wheat imports in 1976 might reach 1 million tons.

Iraq's sugar imports exceeded 250,000 tons in 1975 for about \$175 million. Brazil and Cuba were major suppliers.

Rice imports continue to rise, although imports from various suppliers have widely fluctuated since 1973. U.S. rice exports to Iraq jumped from 31,000 tons in 1974 to 150,000 tons for \$64 million in 1975. Iraq purchased 100,000 tons of rice from Pakistan late in 1975. Total rice imports in 1976 are expected to reach 350,000 tons including large quantities of U.S. rice.

### Outlook and Trade Policy

Iraq plans to spend about \$10 billion for agricultural development in the next 5 years. Yet, many farmers are not responding as expected to Government plans. They find jobs in Government, construction, and military service more rewarding. Salinity of soils and problems in obtaining adequate irrigation water from the Euphrates River have discouraged some farmers. Several thousand Egyptian farmers help cultivate farmland abandoned by the Iraqis.

Iraq's total agricultural imports may reach a value of \$1 billion in 1976. This would include large supplies of many items which have not been important in the past. Imports of mutton, frozen poultry, vegetables, tallow, soybeans, and seed in 1976 are likely to be more than double that of 1975's volume. (*John B. Parker*)

## ISRAEL

Israel's 1975 economic situation was highlighted by recurring devaluations of the Israeli pound. After a 43-percent devaluation in November 1974, Israel adopted a new policy of frequent mini-devaluations of 2 percent beginning in June 1975. The inflation rate was 22 percent in 1975, compared with 56 percent in 1974. There was a slight improvement in the balance of payments in 1975 because of larger agricultural exports.

### Agricultural Production

USDA indices of agricultural production dropped from 189 (1961-65=100) in 1974 to 177 in 1975. Per capita food production index was down from 130 to 118.

*Grain.*—Israel's wheat output was down 20 percent. An extremely hot and dry spell for 10 days in March damaged the development of the crop. Ten



percent of the 260,000 acres planted could not be harvested, and another 10 percent of the crop could be used only for feed. Barley production was down to 10,000 tons, a third of the previous year. Sorghum production was down 23 percent to 26,000 tons. Israel continues to use supplementary irrigation for its wheat crops when water is available to try to attain a crop of 300,000 tons, but with the exception of 1972, an excellent year, this goal has been elusive.

Wheat imports in 1974 reached 352,000 tons, 110,000 tons more than 1973. Imports in 1975 were estimated at near 400,000 tons. The United States continues to be the major supplier. Israel continues to be a steady market for U.S. feedgrains, and almost all of it is sorghum and corn. In 1975, about 852,000 tons were imported with about 90 percent coming from the United States. In addition Israel imported 172,000 tons of barley. Feed consumption is expected to increase by about 5 percent each year, with two-thirds of this made up from imports and the rest from domestic products including soybean meal.

**Cotton.**—Israel's cotton output was 50,000 tons in 1975, slightly above the record of 1974. In 1974, exports were 16,900 tons, compared with 13,300 tons in 1973. Portugal, West Germany, and Belgium were the major recipients. Imports in 1974 dropped to 300 tons, compared with about 1,000 the year before. Export availability from the 1975 crop is about 27,000 tons. Domestic consumption was estimated at 22,400 tons.

**Citrus.**—Israel's citrus output for 1974/75 totaled 1.47 million tons, down 11 percent from the previous season. The sharpest drop was in orange production with the Shamouti variety down 17 percent to 676,000 tons and Valencias down 16 percent to 293,000 tons. Grapefruit production was up 12 percent to a record 435,000 tons. Lemon production was slightly higher, too, at 32,000 tons.

The decline in output of oranges is attributed to an aphid problem plus a reduction in acreage. Grapefruit output increased entirely because the plantings added 5 to 10 years ago are coming into production.

Despite the smaller production of oranges, fresh citrus exports were up by 15.6 percent to 946,000 tons. A slight decline in fresh domestic consumption and a very sharp decline in citrus supplies to processors took place in 1975.

The processing industry continues as a branch of the fresh industry, and since exports were very large, processors had to import some concentrates from Brazil to mix with Israeli products. In 1974/75 about 469,000 tons of citrus were processed, a decline of 36.5 percent from the prior year and 16.6 percent below the 5-year average from 1969/70 to 1973/74.

The European Community took a total of 588,670 tons, 62 percent of Israel's total citrus exports in 1974/75. European Free Trade Association countries took almost 22 percent. At the midpoint of the 1975/76 season, exports of about the same volume as last year are probable, despite an anticipated smaller crop. Citrus to be used for processing is already smaller than last year, and processors are operating at 50 percent of their capacity. Anticipated availability of Israeli processed products for sale on the international market will be about half of the 1974 amount.

**Livestock.**—Beef production was about 20,000 tons in 1975, slightly lower than in 1974. Imports which have been as high as 42,000 tons in 1973 were sharply lower in 1974 but regained in 1975 to an estimated 36,900 tons. The sharp decline in 1974 was a result of higher world beef prices. In 1975, prices of frozen beef remained relatively stable. Other beef prices increased by 23 percent, and so consumption of frozen beef increased.

Poultry meat comprises about 74 percent of the meat consumed in Israel. Per capita consumption of poultry meat reached 78 pounds, up 7 percent from a year earlier. Per capita consumption of eggs reached 407 in 1974, up 4 percent; it was 284 in 1973 in the United States.

The increase in poultry consumption is a deliberate attempt by the Israeli Government to curtail imports of beef, judging that it is more economical to import feedgrains and soybeans for domestic poultry output than importing frozen beef.

### Agricultural Policy

Israel's agricultural production has been consistently constrained by limited water, labor, and increasingly by capital. Approximately 42 percent of the area under cultivation is irrigated; this accounts for 80 percent of the national water used. Israel's long-term plans consider the acute water constraint, because if not relieved it could lead to declining water available for use by the agricultural sector. Israel intends to continue its specialization of production by following the comparative advantages over competitors.

The financial squeeze since the last war has led to progressive abandonment of consumer subsidies on staple food. Despite a declared intention to abandon gradually consumer subsidies on staple food, subsidies increased sharply during 1975. Basic food items such as white bread, cooking oil, eggs, milk, and most cheeses did not increase in price at all. The price increase for all food was 6 percent as compared to a general inflation rate of 22 percent.

The price support system for beef, poultry, and turkey remained basically unchanged. But an



upward sliding scale was introduced, with dates of support prices known as long as 6 months before implementation.

The increase in food prices, as well as subsidies for such inputs as feed, water, and fertilizers, clashed with the effort to retain some control over inflationary pressures. The mini-devaluation of the Israeli pound did not help in this effort, although decreasing prices for grains and oilseeds abroad did help. It was estimated that at the end of 1975, the Treasury was expending more for subsidies, in absolute terms, than ever before.

Quotas for egg and poultry production were reinstated in October 1974, but surplus production continued to plague the Poultry Marketing Board throughout 1975. Rather costly efforts were required to eliminate about 10 percent of all egg production which could not be marketed. Smaller quantities of poultry meat were frozen and stored.

Israel is moving ahead with the concept of "industrial villages." An entire region in northern Israel (Galilee) will be developed in such a manner. An industrial village will derive most of its livelihood from industrial enterprises not necessarily connected with agriculture but still maintaining its rural environment.

#### Foreign Trade

Israel's total imports for 1975 are estimated at a value of \$4.2 billion, down slightly from the 1974 level. Agricultural imports climbed 17 percent, and agriculture's share in total imports increased from 17.1 percent to 20.2 percent. Although agricultural exports at one time covered more than two-thirds of imports, that figure has been steadily decreasing. In 1972, exports covered 78.5 percent of imports, compared with just under 50 percent in 1975.

The value of agricultural exports for 1975 is estimated at \$420 million, up 28 percent from a year

earlier. Israel's leading exports are still citrus and cotton. Exports of processed agricultural products are continuing to make headway.

Agricultural imports slowed somewhat in 1975 following very sharp increases in 1973 and 1974. The total value of imports was an estimated \$850 million, more than double the 1972 figure. Encouraged by low prices during the last half of 1975, some grains were stockpiled.

U.S. agricultural exports to Israel in 1975 increased in value by 22 percent to \$312 million. Wheat was the largest item at \$80 million, with 508,000 tons shipped. This compares with 362,000 tons in 1974. The other large items were corn (245,146 tons) and grain sorghum (640,923 tons), both about the same as in 1974. The other large item was soybeans totaling 390,107 tons with a value of \$98 million, compared with 1974 shipments of 351,461 tons valued at \$68 million. The United States continues to be the major supplier for Israel's wheat, feedgrains (except for barley), and soybeans.

#### Outlook

Israel's grain crops for 1976 did not get off to a good start, because drought hit the southern part of the country. Preliminary projections place the wheat crop output at or below 200,000 tons, 10 percent below the 1975 crop. The removal and lowering of food subsidies early in 1976 will have an impact on the composition of the food bill. A drop is anticipated in the consumption of livestock products which are the most heavily subsidized. This could influence the imports of feedgrains and soybeans. But the full impact is not likely to be felt until 1977.

Israel's economy will continue to suffer from severe inflationary pressures. Efforts will be made to curtail imports in an attempt to reduce the trade deficit. (*Michael E. Kurtzig*)

## JORDAN

Jordan was again subjected to a severe drought last year. Wheat is Jordan's main source of food, and 1975's production was estimated as a fourth of 1974's output. Barley production was about half, as was lentil production, estimated at 15,000 tons.

On the brighter side, Jordan continued to move forward with its agricultural development program. Agricultural training is being developed through extension services. Greater efforts are being made at expanding wheat production. Plans are continuing for the improvement of grain storage facilities.

Agriculture in Jordan continues to provide about 20 percent of the gross domestic product (GDP) and

employs about 30 percent of the labor force. Of the main items contributing to the gross output, livestock, including poultry, ranks first with about 40 percent of the total agricultural value.

#### Agricultural Production

Total agricultural production for 1975 declined by 50 percent. The index of agricultural production declined to 84 (1961-65=100) from 166 in 1974. Per capita food production declined to 57 percent of the base period.

Insufficient rain and poor distribution caused a sharp decline in Jordan's 1975 grain crops, with



the estimate for the East Bank output at 55,000 tons, down from 244,000 tons in 1974. Such fluctuations are typical, since most of Jordan's grain crops depend on rain. Large carryover stocks from the record 1974 crop helped alleviate the impact of the poor crop. The harvested wheat area was about 105,000 hectares, only 43 percent of that seeded in 1974. Very large areas of the wheat land were harvested by hand to obtain as much of the grain as possible. Barley was subject to the same conditions as wheat. Turnout was 18,000 tons (East Bank), about half of 1974's output.

Jordan depends on imports of grain to supplement its domestic production and is expected to import about 275,000 tons of wheat in 1975/76. This would be about 100,000 tons more than in 1974/75. Corn imports are estimated at 40,000 tons, and barley imports, 5,000 tons. From July 1, 1974 to June 30, 1975, the United States supplied an estimated 115,000 tons, or about 68 percent, of Jordan's wheat imports.

### Agricultural Policy

The Government is giving high priority to expanding agricultural production and is continuing its efforts to reduce dependence on rainfall. The irrigation system of the East Ghor Canal is being extended, and a dam is under construction at the Zarka River which after completion this year will increase the irrigated area by about 12,000 acres. Further increases in irrigated areas are expected through improvement of the irrigation facilities.

A new Five-Year Development Plan (1976-1980) aims at increasing productivity in irrigated and rainfed areas. An effort will be made to improve production of fruits and vegetables for domestic consumption and for export.

The plan projects an increase in income from agriculture of 7 percent per year. Total investment in the plan is estimated at \$2.4 billion, of which agriculture's share will be \$125 million. There are, however, other sectors in the plan which were allocated substantial funds to help in agricultural development. Some of these are a chemical fertilizer plant, flour mills, cold storage facilities, a wheat research center, and grain silos.

Jordan is continuing the consumer subsidy programs for bread and sugar. The marketing of agricultural products is free of supports and subsidies.

A revision in the animal and vegetable oil duty during 1975 provides for duty-free entry of soybean oil for the production of plastics. The former duty was 15 percent advalorem. Otherwise, no changes in duties on agricultural products were made during 1975. A revision in the Jordan tariff schedule is still being considered.

Jordan continues to receive assistance from many bilateral and international programs in agricultural and related fields. The United States and the United Nations provide a large share of that help. The United Nations is aiding in meat and milk production and ground water development. The United States is assisting Jordan with many major infrastructure projects, mainly in the irrigated areas of the Jordan Valley.

### Foreign Trade

Jordan is a food-deficit country and relies on imports to supplement domestic production. The total value of imports for 1975 is estimated at \$645 million, about 30 percent higher than in 1974. Agricultural products accounted for 28 percent of the total value of all imports in 1974, compared with 32 percent in 1973. Agricultural products represented 13 percent of the total value of U.S. products that Jordan imported in 1974, compared with 61 percent in 1973. This decline was mainly attributed to smaller 1974 imports of wheat, corn, vegetable oils, and tobacco.

Major U.S. agricultural commodities exported to Jordan continue to be wheat flour, wheat, corn, and vegetable oils. Demand for U.S. processed foods is expected to increase because of the improvement in business activity and the greater number of foreign residents in Amman. In 1975, the United States shipped \$19.5 million worth of agricultural products to Jordan compared with \$9.1 million in 1974. The value of wheat exports totaled \$16.7 million; 107,637 tons were shipped, compared to 26,861 tons in 1974.

The total value of Jordanian exports for 1974 was \$125.3 million of which agriculture comprised about 25 percent. Jordan's major markets continue to be its contiguous neighbors Iraq, Syria, Saudi Arabia, and Lebanon. They took 36 percent of the 1974 export trade, mainly fresh fruits and vegetables. Jordan's leading export is phosphate rock, and India, Japan, and Turkey the major customers. (*Michael E. Kurtzig*)

## KUWAIT

Income from foreign investments, manufacturing, trade, and services became more important in 1975 as petroleum output declined.

The decline was not because available petroleum was lacking but because of a policy decision to reduce the rate of extraction.

Industrial output gained momentum as output of fertilizer, wheat flour, soybean oil, and construction materials increased. Kuwait became more important as a center for banking, services, and regional distribution of furniture, automobiles, and electronics. Regional distribution of cigarettes, beverages, and consumer goods declined as most smaller ports along the Gulf made their own direct purchases. Port congestion in Iran and Iraq led to considerable use of port facilities in Kuwait.

Immigrants from Egypt helped ease Kuwait's shortage of construction labor in 1975. The total population now numbers more than 1 million, including about 550,000 immigrants.

### Foreign Trade

Total exports increased in value from \$3.8 billion in 1973 to \$11.2 billion in 1974 because of higher petroleum prices. A planned reduction in petroleum exports caused the total export value to fall below \$11 billion in 1975. Imports increased in value to \$1.7 billion in 1975.

Agricultural imports surpassed \$330 million in 1975, despite reductions in prices for imported rice and wheat. Yet, the growth was less striking than the rise from \$188 million in 1973 to about \$280 million in 1974. Government policies and subsidies allow shoppers in Kuwait to spend less than 17 percent of their income on food although 96 percent of the supply is imported.

Three systems of food marketing operate in Kuwait. First, the distribution of 14 basic products imported by Kuwait Supply Company (KSC) are usually heavily subsidized by the Government. Wheat flour made from imported wheat at the flour mill which is owned and operated by KSC is the major product distributed, more than 80,000 tons annually. About 40,000 tons of imported rice are now sold to retailers in large bags by distribution centers operated by KSC. Sugar, cooking oil, pulses, and tomato paste are also important items sold at subsidized prices.

Second, wholesale imports are made by a union of consumer cooperatives. Managers at the headquarters of the cooperatives pool orders for imported products. Some of the items imported principally by cooperatives for sale at their stores to consumers are corn oil, lentils, canned fish, vegetables, fruit, fruit juices, and peanut butter.

Third, a distribution system is handled by many small traders and wholesalers. Their profit margins are small in contrast to neighboring countries where Government involvement in food imports is less prevalent.

Medium-sized grocery stores carry a wide line of products including many convenience foods, meats, and blended milk. They cater to immigrants and

travelers not equipped to take advantage of the special opportunities to buy foods in bulk at Government or cooperative stores. Processed foods from all over the world can be seen in the thousands of small grocery stores sprinkled throughout urban areas of Kuwait. Soft drinks, fruit juices, fresh fruits and vegetables, canned food, nuts, and bakery products account for most of their sales.

Kuwait now imports over 250,000 tons of grain annually. This includes more than 120,000 tons of Australian wheat; 80,000 tons of coarse grains from Thailand, Africa, and Pakistan; and more than 50,000 tons of rice from Asia and the United States.

Rice consumption is rising rapidly because of the growing population and Government subsidies. Official statistics for rice imports do not include considerable supplies received in small parcels by land from the United Arab Emirates where the Government subsidy is greater. Many immigrants buy rice from supplies received from UAE, since they can buy it from small traders in small quantities. Shoppers must buy in bulk in shops that sell the Kuwait Government's rice supplies, usually at least a 100-pound bag. Rice imports officially entering Kuwait increased from 28,000 tons in 1973 to about 55,000 tons in 1975. Total rice consumption in 1975 was about 70,000 tons.

Consumers seem to prefer basmati rice and U.S. long grain rice, compared to rice from Thailand. Some poorer immigrants buy Thai or Pakistani IR-6 rice at very low prices. Some reports indicate that Kuwait would like to export its stock of Thai rice, now that basmati rice is plentiful in Pakistan.

U.S. rice exports to Kuwait increased from 4,000 tons in 1973/74 to 27,000 tons worth \$14 million in 1974/75. But the value will probably fall below \$1 million in FY 1976. The trade in packaged rice has been partly maintained, but sales of U.S. rice in bulk to Kuwait are hampered by sharp competition from Asian suppliers.

The value of U.S. agricultural exports to Kuwait declined from \$21.4 million in 1974 to \$10.7 million in 1975 because of the setback in rice sales. Sales of soybeans and frozen poultry gained in 1975, and further gains are likely in 1976.

Poultry enterprises are expanding in Kuwait, but most of the operations contain less than 2,000 chickens. Imports of corn from Thailand are rising. Kuwait's imports of corn increased from 17,000 tons in 1974 to about 23,000 tons in 1975. Imports of sorghum and millet from Thailand and Sudan are slightly below the volume of corn imports.

A new mill for crushing soybeans recently opened near the harbor area where the flour mill operates. Imported U.S. soybeans are used as raw materials for the mill. Soybean oil is sold to local cooperatives for cooking, and soybean meal is sold



to poultry farmers and families who raise sheep. U.S. soybean exports to Kuwait should average about \$10 million annually in the next several years.

### Outlook

Kuwait's food imports have become more diversified in recent years with much larger imports of meat, processed foods, cooking oil, and fresh fruits and vegetables. Problems in receiving fresh produce from Lebanon and greater competition from Saudi Arabia and Iraq for limited supplies from

Jordan will cause Kuwait to seek more farm products from Australia, India, and Pakistan.

Severe shortages of onions and potatoes early in 1976 were eased by larger deliveries from India. Apples and pears were in short supply recently when shipments from Lebanon diminished. Imports of Australian apples are expected to rise.

Some U.S. exports to Kuwait in 1976 should rise. These include soybeans, vegetable oils, beverage ingredients, onions, fruit juices, nuts, and frozen poultry. Many items were sent to Kuwait for display at April Food Fair at the Kuwait Hilton. (*John B. Parker*)

## LEBANON

Interfactional fighting in Lebanon reached the level of open warfare in April 1975, and an estimate made in mid-November placed the cost of the civil strife for the preceding 6 months at about two-thirds or more of the country's 1974 gross national product of 8.5 billion Lebanese pounds, or U.S. \$3.7 billion. The civil strife is still continuing. Early in 1975 Lebanon's GNP had been expected to increase by 20 percent or more during the year. Now economic recovery will take several years, and some phases of the agricultural sector may take longer.

### Agricultural Production

Wheat production during 1975 was adversely affected by the lack of rainfall late in spring. This caused output to drop 10,600 tons below the 1974 harvest to a total of 65,000 tons.

The barley crop, less affected by drought and with a slight increase in area planted, produced about 14,000 tons which was slightly better than in 1974. Corn is increasing marginally with 1975 production totaling 1,500 tons.

Vegetables and deciduous fruits yielded average production, and the apple and pear outputs were reported at 144,000 and 16,000 tons, respectively, approximately the same as the amounts harvested in 1974. The quantity of apples for export in 1975 was forecast at 124,000 tons and of pears, 5,000 tons. These quantities now appear to have been shipped.

Pulse production in 1975 is estimated at 6,100 tons from 7,500 hectares (18,533 acres). The leading pulse crops are chickpeas and lentils accounting for about 2,700 tons each; broadbeans and dry beans make up the rest. Favorable growing conditions resulted in good yields for the lentils, chickpeas, and broadbeans grown in the Bekaa

Valley. Pulses and other crops fared less favorably in the southern and northern provinces because of a lack of rain in spring.

Production of field crops seems to have been less affected by the civil war than was Lebanon's output of livestock and poultry. The civil strife brought widespread destruction, according to reports from the Bekaa Valley where at least 50 percent of Lebanon's broiler production is centered and more than 60 percent of the eggs is produced. Entire flocks were destroyed by burning and bombing of poultry facilities, and it is also reported that the electrical generators of the largest commercial hatchery were damaged. The civil strife has also caused some harm to the poultry industry around Tripoli in north Lebanon. Best estimates indicate that production of both meat and eggs will be reduced by at least 20 percent. From time to time, transportation by road has been cut for intervals up to 2 weeks, preventing some farms from getting feed and veterinary supplies.

### Foreign Trade

Wheat imports during the 1975/76 season were expected to reach 360,000 tons, a 20-percent increase over the previous season. In 1974 Canada was the leading shipper and supplied 155,000 tons, followed by the United States with 78,000 tons. By the end of 1975, the U.S. records showed that exports of about 43,000 tons of wheat had already been supplied but that flour sales were down, a decline that can be attributed to the high export price.

The poultry industry is the main source of demand for feed grain imports which are then processed into poultry feed. Some of the feed is shipped to neighboring Arab countries which are

expanding their poultry industries. Lebanon imports many agricultural commodities from the United States, but the internal strife has seriously interrupted this trade. During 1975 only \$43.1 million worth of items were imported from the United States, only about 61 percent of the 1974 total.

In 1975, U.S. agricultural imports from Lebanon included small amounts of lentils, onions, vegetables, dried fruits (principally apricots and dates), intestines, several herbs and spices, and \$8.8 million worth of Turkish-leaf cigarette tobacco. The import value was \$10.7 million.

## Outlook

One of the big blows to Lebanon's economy by the civil strife is the damage done to its capital stock which is not included in GNP calculations. An improving economy certainly depends on a cessation of hostilities and a return to normal operations. If peace returns soon, Lebanon and, in particular Beirut, will probably remain a major regional business and financial center. Beirut has the advantage of location, transportation facilities, communications, and a large, relatively skilled labor force. Agriculture, although a subsidiary supplier of food, contributes 8 to 10 percent of the GNP and earns foreign exchange. (*H. Charles Treagle*)

## OMAN

Increased petroleum revenues and development loans have bolstered Oman's economy. The ruler, Sheik Qaboos, has followed Kuwait's economic policy of widespread distribution of Government petroleum revenues. A new strip city about 40 miles long is under construction from Muscat to the north where a new airport is open near Qurum.

Oman's gross national product grew suddenly from about \$400 million in 1972 to almost \$2 billion in 1975. More than 100,000 immigrants from India and Pakistan work in Oman. Income from petroleum is scheduled to rise during the next decade. Oman's plans to develop large commercial fishing fleets and commercial agriculture will include a strong reliance upon outside capital and technology.

### Agricultural Production

Agriculture in Oman remains predominantly subsistence in nature. Most of the swelling food demand for the growing urban population must be supplied by imports.

Rainfall is sufficient for agriculture in two areas—Dhofar in the west and along the Batinah Coast in the east. Winter rainfall is trapped by small dams or in ravines where palm trees grow.

Production of sorghum and millet reached 51,000 tons in 1975 because of good rainfall near Sallalah. About 3,000 tons of wheat and 2,000 tons of barley were harvested in highland areas.

Greater use of fertilizer and unusually ample spring rains allowed farmers to harvest about 55,000 tons of dates in 1975. Output of other fruit crops included 10,000 tons of bananas, 6,000 tons of figs, 6,000 tons of grapes, and about 2,500 tons each of mangoes, limes, and oranges.

Output of tomatoes increased to about 30,000 tons in 1975, and production of other vegetables exceeded 20,000 tons. Eggplant, marrow, melons, and pulses are now grown for sale in the nearby towns.

Livestock find grazing during the winter but must be fed during the hot summer. In 1975, Omani farmers owned about 125,000 goats, 90,000 chickens, 50,000 cattle, 30,000 sheep, 18,000 donkeys, and 4,500 camels. Farmers produced about 140,000 tons of alfalfa for their livestock.

### Foreign Trade

Total imports increased in value from \$394 million in 1974 to almost \$1 billion in 1975. The United Kingdom, United Arab Emirates, United States, Japan, India, and Pakistan were major suppliers. Total exports increased in value from \$301 million in 1973 to \$1.3 billion in 1974 and advanced another 25 percent in 1975.

Agricultural imports exceeded \$115 million in value in 1975, double the 1974 level. Larger imports of rice from Pakistan and wheat flour from Australia arrived. Imports of dairy products, apples, and canned meat from Australia and Europe increased markedly. Imports of many kinds of processed foods from the United States increased. New supermarkets operated by Europeans have many American products.

U.S. agricultural exports to Oman reached a value of \$1.1 million in 1975. Sales of U.S. rice to Oman declined only 50 tons, although total rice imports increased from 29,000 tons in 1974 to 33,000 tons in 1975. A new mill recently opened in Matruh with an annual capacity for producing 30,000 tons of wheat flour. A new cold storage warehouse also recently opened in Matruh to



facilitate rising imports of beef and mutton from Australia and frozen poultry from Europe. The opening of several large international hotels will provide additional market opportunities for sales of U.S. foods, particularly frozen turkeys, canned fruits and vegetables, and fruit juices. New soft drink bottling plants used about \$200,000 worth of ingredients imported from the United States in 1975.

Oman sends some dates, tomatoes, and figs to Dubai and Abu Dhabi late in the summer. Total agricultural exports are declining as prosperity at home provides more attractive marketing opportunities.

### Outlook

Sales of food by new grocery stores are booming. New hotels are usually full because of the economic boom generated by petroleum wealth

and by large contracts awarded to foreign firms. An influx of foreign technicians involved in petroleum operations, construction, trade, and development of a modern infrastructure has bolstered Oman's demand for imported food. Imports of wheat are scheduled to exceed 40,000 tons in 1976 and rice imports are likely to fall in the same range. Imports of fresh fruits and vegetables are rising, although subsidies and high prices have caused some increase in local output.

Oman is a good potential market for U.S. exports of wheat, onions, processed foods, and pulses. Since arrivals of fresh produce from Lebanon have declined, Oman has become more dependent on Australia for apples, Egypt for oranges, and India for onions and potatoes. Total agricultural imports by Oman might reach \$250 million in 1976, more than double the 1975 value. (*John B. Parker*)

## QATAR

Immigrants account for about 70 percent of the labor force in Qatar's flourishing economy. British and Lebanese are active in banking and trading firms. Egyptians and Indians perform most of the manual labor. High petroleum prices helped push the gross national product to \$1.9 billion in 1975, more than \$10,000 for each person if distributed to the nation's 185,000 residents. A new mill produced about 15,000 tons of wheat flour in 1975. Fertilizer output increased to about 80,000 nutrient tons.

### Agricultural Production

Generous subsidies for fertilizer, seeds, and equipment caused a rebound in crop production in 1975. Vegetable production increased from an average of 20,000 tons in 1970-74 to about 24,000 tons in 1975. Use of improved varieties of tomatoes and melons from the United States helped farmers to improve yields on the 1,100 hectares of vegetables.

New commercial livestock operations included dozens of broiler operations and several new feedlots for beef cattle. Imports of animal feed continued to rise. Foreign technicians helped improve the efficiency of livestock operations and provide advice on coping with salinity problems. New orchards helped push the output of dates above 18,000 tons, and about 3,000 tons of oranges and lemons were harvested in 1975.

### Foreign Trade

Total exports increased from a value of \$700 million in 1973 to about \$2.3 billion in 1975 most-

ly because of higher prices for crude petroleum. Imports lagged far behind at a value of only \$271 million in 1974 and about \$580 million in 1975. Agricultural import values increased from \$46 million in 1973 to \$87 million in 1974. A marked rise in imports of live animals from Australia, processed foods from Europe, and fresh fruits and vegetables from India, Australia, and Saudi Arabia pushed the value of agricultural imports above \$120 million in 1975.

Qatar receives food imports from many sources. Lebanon supplied about half of the 2,518 tons of frozen poultry imported in 1974, but Hungary, Netherlands, and Denmark gained importance as imports from Lebanon dwindled in 1975. Australia provided 61 percent of the 620 tons of frozen meat in 1974 and over 75 percent of the 1,100 tons received in 1975. Lebanon supplied a third of the imported eggs in 1974, but East European countries provided about 40 percent of the 2,000 tons of eggs imported in 1975. Lebanon supplied almost half of the 544 tons of cheese imported in 1974, but Australia and the European Community became major suppliers late in 1975. Denmark supplied half of the 612 tons of powdered milk, and the Netherlands supplied 75 percent of the 1,808 tons of evaporated milk imported by Qatar in 1974. These sources maintained their dominance as imports of preserved milk increased almost 20 percent in 1975. Denmark supplied over half of the 140 tons of butter imported in 1974 and made further gains in 1975.

Imports of cereals and preparations continued to rise in 1975, particularly animal feed. Pakistan supplied over half of the 2,300 tons of barley

imported in 1974 and made even larger deliveries in 1975. Pakistan provided over 90 percent of Qatar's imports of over 4,000 tons of wheat bran last year.

Australia supplied 58 percent of the 23,315 tons of wheat imported in 1974 and made even larger deliveries in 1975. Canada supplied most of the rest of Qatar's wheat imports in the last 2 years.

Rice imports increased from 9,332 tons in 1974 to 11,600 tons in 1975. The major sources of rice imports in 1974 were Thailand, which shipped 4,465 tons; United States, 1,740 tons; India, 1,000 tons; and Pakistan, 992 tons. Since prices were lower, Pakistan sold more than 5,000 tons of basmati rice to Qatar in 1975. Imports of horticultural products are rising, but sources of supply fluctuate widely.

Lebanon and the United Kingdom provided about half of the 2,252 tons of canned vegetables imported in 1974. Imports of fresh vegetables increased from 7,585 tons for \$3 million in 1974 to more than 10,000 tons in 1975. Saudi Arabia provided about half of the imports of fresh vege-

tables in the last 2 years.

Lebanon supplied half of the 11,946 tons of fresh fruit imported in 1974; Jordan provided about a fourth and Saudi Arabia about a sixth. Imports of fruit from Jordan and Australia increased in 1975 as arrivals from Lebanon declined. Japan and the United Kingdom each supplied almost a third of Qatar's imports of fruit juices in the last 2 years.

Brazil supplied 5,500 of the 8,471 tons of sugar imported by Qatar in 1974, but India delivered 6,000 tons in 1975. Disruptions in Lebanon have caused Qatar to seek new sources for imports of coffee, pulses, seeds, canned fruit, candy, grapes, and eggs.

### Outlook

Food imports are likely to reach \$150 million in 1976 as new marketing facilities are completed. U.S. agricultural exports should rise well above the \$1 million recorded in 1975. U.S. firms are expected to help Qatar develop new beef cattle enterprises. (*John B. Parker*)

## SAUDI ARABIA

Profits from commerce and real estate added to the boom generated by massive petroleum wealth. Plans to reduce petroleum output as part of the Organization of Petroleum Exporting Countries plan to maintain high prices were moderated late in 1975. All remaining shares of U.S. firms in ARAMCO (Arabian-American Oil Company) were purchased in March 1975. An 18 percent reduction in petroleum output slowed the growth in Saudi gross national product. Crude oil production declined from a record 3 billion barrels in 1974 to 2.5 billion barrels in 1975. Yet petroleum revenues received by the Saudi Arabian Monetary Agency increased from \$22.9 billion in 1974 to \$27.6 billion in 1975.

New Government programs and subsidies provided a much wider base for income distribution in 1975. Under harsh living conditions in rural areas, population gains have remained far below expectations. New monthly payments were implemented for each child to assure a better diet.

Food prices have increased markedly since 1973, although lower prices for imported products allowed consumers to buy rice, wheat flour, and cooking oil for less late in 1975. Port congestion and disruptions in the distribution of fruits, vegetables, and eggs from Lebanon caused the overall index for food prices to continue upward, despite lower cereal prices.

A new food marketing system is developing to cover small towns and villages as modern highways are built. Port facilities at Jidda now handle over half of Saudi Arabia's food imports. Al Khobar has become a busy port for imports of wheat flour, rice, and corn in the last 2 years. New ports at Yanbo and Jizan on the Red Sea and Jubail in Eastern Province should relieve port congestion in the next 2 years. Private importers in Jidda import cereals, livestock, meat, and a wide variety of processed foods. Government purchases of rice were made in 1974 when prices were high on the world market but private traders now dominate imports. Retail prices for most processed foods are about triple the average price paid by importers. Costs of unloading, storing, and distributing imported processed food for major firms in Jidda are exacerbated by high costs of equipment, warehouses, and labor.

In addition to booming demand for food among Saudis, more immigrants must be fed. The influx of foreign technicians and about 1 million laborers from Yemen has added to Saudi Arabia's food needs.

Manufacturing accounted for only 2 percent of Saudi Arabia's gross national product estimated at \$32.7 billion at current prices in 1974 and almost \$40 billion in 1975. The fertilizer factory at Damman is a major industry for Saudi Ara-



bia. Its output of urea reached 215,000 tons in 1975, and the target for 1976 is 300,000 tons. Output of feed for poultry and dairy cattle by a factory at Damman is scheduled to reach 60,000 tons in 1976, almost double the 1975 level.

### Agricultural Production

Total agricultural production increased more than 20 percent in 1975. Some reasons for big gains were rising investments of petroleum wealth in farming, the heaviest spring rainfall in half a century, higher Government subsidies and production bonus payments, and many new marketing opportunities because of booming urban demand and new roads.

Farmers harvested more than 6 tons per hectare from 10,000 hectares of high-yielding variety wheat in 1975. Wheat production reached a record 193,000 tons, up from 90,000 tons in 1974 and from only 36,000 tons in 1972. Government subsidy payments of \$70 per ton, plus market prices of \$160 to \$185 per ton, provided excellent returns to wheat farmers. Also, half their expense for fertilizer was paid by the Government. Irrigation water and pesticides are free. A commercial farmer can buy a tractor and equipment with no initial cash. Government subsidies pay 45 percent of his cost of a tractor and The Agricultural Bank will loan an active farmer the rest of the funds needed for the purchase.

Dozens of new dams have been built in southwestern Saudi Arabia to trap seasonal rainfall. Production of sorghum and millet in this area has increased as the area planted expanded and multiple cropping gained in popularity. Total production of sorghum and millet in Saudi Arabia during 1975 was estimated at 375,000 tons. Poultry operations near Taif and Abha expanded, and demand for coarse grains exceeded domestic supplies. About 8,000 tons of broilers were sold by commercial poultry farmers in 1975.

Vegetable farming continued to provide sensational profits for farmers in small selected areas of irrigated farmland. Output of vegetables and melons in Qasim Amirate exceeded 1 million tons in 1975, and almost 500,000 tons were produced in Riyadh Amirate. Prehistoric water obtained from very deep wells was used to irrigate most of the intensive gardens in central Saudi Arabia. More vegetables were also planted in the Tihama flood plain and in the Eastern Province.

The best vegetable varieties available in America and Europe are used by Saudi farmers. Their yields are high since many inputs are free, highly subsidized, or purchased on credit easily obtained from The Agricultural Bank. Production of tomatoes in Qatif oasis provides an example of

high yields and profits from vegetable farming. Farmers in Qatif report obtaining yields of 80 tons per hectare from the VF-8 variety of tomatoes. Farmers can get \$1 per kilogram if they sell tomatoes to customers at roadside or farm stands. But most of the tomatoes produced in Qatif oasis in 1976 will be sold in the Al Khobar Produce Market for about 40 cents per kilogram. This would provide gross sales of \$32,000 per hectare from top yields of VF-8 tomatoes.

Ownership of 50-acre farms can be earned if participants will develop irrigation and crop cultivation during a 3-year program in Qatif oasis and several other projects. Foreigners can obtain 49 percent ownership of land to be developed jointly with a Saudi partner.

About 700,000 hectares of cropland are cultivated in Saudi Arabia, including about 190,000 hectares under irrigation. Most farms are small, and income from other sources is important.

Output of watermelons in 1975 was about 1 million tons, mostly because of multiple cropping, heavy fertilizer use, and marketing schemes in Qasim Amirate. About a tenth of Saudi Arabia's watermelon harvest is sold to foreign customers, particularly in Kuwait and United Arab Emirates. The giant Garrison variety has become more important, although small green varieties remain important.

Tomato production increased from 90,000 tons in 1971 to about 200,000 tons in 1975. Output of vegetables of the cabbage family are about equal in volume to tomato output. Yields of cabbage, lettuce, broccoli, cauliflower, and spinach are excellent during the winter in intensive plots. Celery, onions, and turnips are also popular winter vegetables. Eggplant, cucumbers, pumpkins, squash, and sweet melons are important vegetables grown primarily during the summer. Total output of these 5 crops in 1975 was about 500,000 tons.

Date production declined from 251,000 tons in 1970 to only 189,000 tons in 1971 when drought damaged many trees. Small earth catchments have been made with the use of tractors to retain more seasonal rainfall for use in small date groves. Excellent rainfall in 1975 caused a rebound in date production with output again nearing the 1970 level.

### Foreign Trade

The sudden rise in petroleum prices caused total exports to more than triple in 1974, reaching \$30 billion. Shipments of crude oil declined about 10 percent in 1975, but total exports reached \$36 billion. Private investment abroad, mostly by the Saudi Arabian Monetary Agency

increased from \$1 billion in 1973 to \$8.5 billion in 1974 and topped \$11 billion in 1975. Purchases of Government bonds in the United States and Europe accounted for a large part of these investments.

Imports remained small in contrast to total petroleum revenues and investments in major world financial centers. Saudi Arabia's total imports exceeded \$6 billion in 1975, up from \$3.8 billion in 1974 and \$1.8 billion in 1973. The United States supplies about a third of Saudi Arabia's total imports but less than a fourth of the agricultural imports.

Total agricultural imports in 1975 were valued at about \$750 million, up from \$475 million in 1974. The average was \$133 million during 1965-69. U.S. agricultural exports to Saudi Arabia increased from \$36 million in 1972 to \$110 million in 1974. Lower rice prices prevented a repeat of spectacular gains in 1975 when the value reached \$117 million.

Imports of wheat flour reached 400,000 tons in 1975, almost double the 1974 level. About two-thirds of the wheat flour came from the United States, and the European Community supplied most of the rest. Wheat imports totaled 120,000

tons in 1974 when Australia supplied over 90 percent but they declined to about 70,000 tons in 1975. Imports of 15,000 tons of U.S. wheat arrived in 1975.

Rice imports increased from about 200,000 tons in 1974 to about 250,000 tons in 1975. Arrivals from the United States rose from 90,000 to 115,000 tons. Imports of basmati rice from Pakistan reached 60,000 tons in 1975, double the 1974 level. Arrivals from Thailand remained nearly the same at 75,000 tons.

U.S. exports of vegetable oils to Saudi Arabia reached \$8 million in 1975, up from \$1.3 million in 1973. Corn and soybean oil have been rapid-growth items.

### Outlook

U.S. agricultural exports to Saudi Arabia could reach \$200 million in 1976. The new rice mill at Jidda will import 80,000 tons of brown U.S. rice for polishing. Total U.S. rice exports to Saudi Arabia might reach 200,000 tons this year. Sales of frozen poultry, pulses, coarse grains, and canned foods are expected to rise. (*John B. Parker*)

## SYRIA

Agriculture generates about 20 percent of Syria's gross domestic product (GDP), estimated at \$4 billion in 1974. At current prices the GDP increased more than 50 percent in 1974. Agriculture contributed about a third to Syria's export proceeds in 1974 and 1975. The Syrian economy appears to have made an excellent recovery from the losses caused by the October 1973 Middle East war. In part this can be attributed to considerable financial assistance from several Arab countries.

Because more than 80 percent of Syria's crops are grown on unirrigated land, the amount and distribution of winter and spring rains are a key factor in determining yields. Early rains were sparse and then ample in December 1974 which delayed sowing of the 1975 grain crop, but moisture conditions were generally favorable from then on, particularly for wheat. An official report of the wheat and barley crops has not been released, but the outturn appears equal to that of the good grain crops of 1974. The 1975 cotton crop appears slightly larger than a year earlier.

The country's unexploited potential for agricultural development is substantial, particularly through irrigation. Production of rain-dependent

crops, mainly wheat, barley, lentils and chickpeas, olives, grapes, figs, and vegetables, fluctuate widely from year to year because of variations in rainfall. The waters of the Euphrates River will be eventually shared with the other riparians in a proportion still to be defined. The river has a large potential for irrigation.

Syria's third 5-year plan ended in 1975, with the Fourth Plan still to be announced for 1976 to 1980. The Third Plan gave a high priority to agricultural development with an allocation of about 35 percent (\$570 million) of public investment to agriculture, mostly in the Euphrates Basin. Considerable investment will be required over the next 5 years in this same area for construction of irrigation and drainage systems which use water from above and below the Euphrates Dam. Thus, the high rate of public investment in agriculture is expected to continue. Syria is receiving assistance from international programs such as United Nations Development Program as well as such bilateral programs as USAID and loans and grants from Arab oil-producing countries.

Syria's most important agricultural development activity currently underway is the devel-



opment of the Euphrates Basin. The completion of the construction phase of the dam at Tabaqah, which was officially renamed Thawra (or Al-Sawra, an Arabic word for revolution), is expected during 1976. The project when completely operational is designed to provide water for irrigating 640,000 hectares (1,580,000 acres). This would more than double the present irrigated area. The Euphrates Dam was built with considerable technological and financial assistance from the Soviet Union.

The first area to be exploited for irrigation associated with the Euphrates development is the pilot project consisting of 24,000 hectares in the Balikh Basin. The main canal serving this project takes water from the river below the dam. Summer crops during 1975 consisted of cotton, corn, alfalfa, rice, and soybeans on a trial basis. In addition, over 200 hectares of land have been planted to 110,000 fruit trees and 167,000 poplar trees for commercial use.

A Supreme Agricultural Council was created by Law No. 14 dated November 13, 1975. The Council will be responsible for approving the annual national agricultural plan which establishes production goals, farmers' obligations, and the Government's obligations in furnishing production inputs, setting farm prices, and marketing of agricultural products.

The Syrian Government through State-operated agencies provides farmer price supports for such basic food commodities as wheat, barley, and lentils and for such industrial crops as cotton, tobacco, and sugarbeets. For cotton, premiums are also given to cover trucking costs to gins, and usually for early delivery. The industrial crops are processed at State-operated gins and factories which generally take delivery of the entire crop. For such food crops as wheat, barley, and lentils, farmers generally sell their surplus to local merchants or to the General Establishment for Cereal Processing and Trade (more commonly known as the Cereals Office). The price guarantees are usually announced before the planting season and generally are valid for the entire crop. In the case of industrial crops, farmers must obtain a permit which specifies the acreage. Farmers growing high-yielding varieties of wheat also must obtain an acreage permit. Farmers holding permits are allowed to obtain fertilizer and credit from the Agricultural Cooperative Bank on favorable terms.

State farms exist for crop and animal production, but at the present time they account for less than 5 percent of the production of any crop. In 1974, the State dairy farms accounted for only 3 percent of Syria's cow milk production.

The Agricultural Cooperative Bank has 51 branches throughout the country. It provides farmers with credit for the purchase of seed, chemical fertilizers, pesticides, farm tractors, and machinery. For certain crops a credit limit is set, based on the farmer's acreage permit, which also sets a maximum on the quantity of fertilizer that can be purchased. Foreign Trade Organization for Chemicals and Foodstuffs handles the imports of fertilizer which it turns over for distribution by the Bank. The Agricultural Cooperative Bank provides about 85 percent of the bank loans to agriculture.

The Syrian Government has price controls on most food items. Also it issues a family supply card which permits holders to purchase limited quantities of sugar, rice, and cottonseed oil at prices usually much below free market prices. Flour is subsidized to bakeries, which in turn sell bread at very low prices. According to press reports, some S.L. 600 million (\$168 million) are allocated in the 1976 budget for the Government's program for stabilizing prices.

According to official statistics, Syria produced 53,183 metric tons of nitrogen fertilizers in 1974, up 59 percent from 1973 but below the 1972 output. This fertilizer is manufactured at the country's only plant, the Nitrogen Fertilizer Plant at Homs. The plant's annual capacity is rated at 150,000 tons (26 percent nitrogen content), and according to newspaper reports output increased substantially in 1975 to nearly 84,000 tons by December.

Syria has very large phosphate rock deposits. So far these have been used mainly for export, since no local facility can convert the rock into phosphate fertilizer. Phosphate rock exports totaled 489,095 tons in 1974, 300,000 tons more than in 1973. During the first half of 1975, they totaled 105,410 tons according to preliminary official data, an indication that they were substantially off in 1975.

Plans exist for building two phosphate fertilizer plants as well as another nitrogen fertilizer plant. The contract for the nitrogen plant was signed October 1, 1975, with the French company Creusot-Loire. It is to be completed early in 1979 and is to have a daily output of 1,050 tons of ammonia and 1,000 tons of urea.

In 1974, 79,800 tons of nitrogenous fertilizers were imported (26,000 tons in 1973); 34,400 tons of phosphate (4,600 tons); 2,200 tons of potash (none); and small amounts of other fertilizers (13,100 tons). Fertilizer supplies in 1975 were ample, so import levels of triple superphosphates and potash were probably unchanged from 1974. A slight increase is expected for 1976.



Final official estimates for the 1975 grain crops have not been released, but according to the Ministry of Agriculture and Agrarian Reform, the 1975 wheat area totaled 1.69 million hectares, 174,364 of which were irrigated. Yields on irrigated wheat, mostly high-yielding varieties, averaged 2,074 kilos per hectare, compared with 783 kilos on rainfed lands. Production of wheat is estimated at 1.55 million tons. Only 13,889 hectares of the slightly more than 1 million hectares of barley were irrigated in 1975.

Another good year for wheat and barley is possible for 1976 because of ample and well-distributed rains throughout all major Syrian grain-producing areas so far this season.

Good lentil crops 2 years in a row seem to assure large export availabilities. The Cereals Office announced a request for offers on 10,000 tons of lentils in November 1975. Another request was announced early in February, but it is not certain if any of the first offer was actually sold. The usual trade in lentils with Lebanon, which often is not recorded in the official Syrian export statistics, probably dropped off considerably during the marketing of the 1975 crop, because during 1975 the Cereals Office reportedly purchased about 54,000 tons of a crop estimated at 67,000 tons of domestic lentils. This represents over 80 percent of the crop and is the largest quantity ever handled by the Cereals Office.

The 1975 cotton crop was larger than earlier estimates mainly because of the very favorable field conditions during picking. Final estimates of the 1975 cotton area put the total at 208,946 hectares, some 89 percent of which was irrigated. This represents a slight increase over the 1974 area. Most of the increase was in irrigated cotton plantings. Although a final estimate of the 1975 crops has not been released, judging from the deliveries to gins, the crop is now estimated at 415,000 tons of seed cotton. The lint outturn, estimated at 159,000 tons, increased 10 percent over the 1974 crop. The ginning rate improved to an estimated 38.3 percent, an important factor, mainly because of the ideal field conditions during picking.

The outlook for the 1976 cotton can only be judged by field conditions just before planting. These are now considered the best in many years from the standpoint of moisture, and therefore yields are projected at near 1975 levels. If farmers plant at the indicated levels and if yields are as projected, then a crop of 375,000 tons of seed cotton can be expected. Most of the indicated drop below 1975 would be because of the anticipated reduction in irrigated cotton which gener-

ally yields more than five times that of cotton grown on rainfed land.

The mid-term outlook for cotton is somewhat unclear because of the slowness in bringing additional land under irrigation, particularly in the Euphrates Basin, and because of the effects of the new policy aimed at intensifying production through double cropping on irrigated land. Cotton remains one of the best organized crops from the standpoint of Government assistance programs. Thus, farmers accustomed to this crop may be reluctant to make changes dictated by Government policy, unless the remuneration is equally as favorable and offsets some of the risks involved with growing new crops.

The 1975 sugarbeet area, unofficially estimated at 6,500 hectares, was unchanged from the 1974 area. Production was estimated at 150,000 tons. Yields in 1975 probably averaged slightly higher than the 21.3 tons a hectare level of 1974, but they still remain well below the 25-ton average of 1969-73. No increase in area is expected in 1976. The official trade statistics show 1974 raw sugar imports at 62,900 tons and refined sugar at 98,600 tons, compared to 44,865 tons and 103,705 tons respectively for 1973. Reported industrial production of 148,000 tons presumably combines the output of refined sugar from domestic beets and imported raw sugar at the three State-owned sugar plants at Homs, Adra, and Ghab. The Government Sugar Authority is responsible for the sugarbeet program as well as operating the three existing plants and contracting for building the three new plants. Sugar activities had formerly been handled by the Union of Food Industries (UNIFOOD).

About 228,000 tons of cottonseed is expected to be crushed during the 1975/76 season which started last September. If the 1976 crop reaches forecasted level, then cottonseed availabilities for crushing are expected to drop to about 215,000 tons during the 1976/77 season.

The 1975 olive crop was very good. Certainly weather conditions, particularly rainfall distribution, were considered very favorable during 1975. However, the size of the 1975 olive crop surprised producers, since it followed the record 1974 crop when 215,000 tons of olives were harvested. The 1975 olive crop is estimated at 168,000 tons from virtually the same 15.4 million trees. The total area in 1974 was 179,834 hectares, of which only 4,806 hectares were irrigated. Rainfall so far this season has been favorable, and if it continues the 1976 olive harvest could equal or exceed 1974's record.

The official data indicate small but increasing importance for peanuts and sunflower. The sesame area was up sharply in 1974 to 34,000 hec-



tares, presumably because of the favorable moisture conditions for summer crops, but in 1975 sesame plantings were at a more normal level of 15,000 hectares. The forecast for the 1976 area is up at 20,000 hectares, and predicted yields are about 400 kilos per hectare. The peanut crop forecast output is about 20,000 tons.

Increasing edible oil consumption has put Syria on an import basis for vegetable oils. The major item in 1975 was copra oil. Syria has imported animal fats and oils for many years. A new Government policy will require Syrian farmers to double-crop irrigated land. This could lead to a great expansion in soybean cultivation as trials are now being conducted on a pilot project in the Euphrates Basin. The Ministry of Agriculture's plan calls for 7,000 tons of soybeans for crushing in 1976.

Tobacco output was the best in several years. And 1975's production of 14,000 tons was 4,000 tons above the 1974 crop.

Syria's official statistics place livestock numbers in 1974 at 5.3 million sheep, 684,000 goats, and 524,000 cows. For sheep, this figure represents the annual head tax number, which is assumed to miss 15 percent of the animals. The 1974 sheep figure represents an increase of 9 percent over 1973, reflecting the good range conditions and feed availability from crop residues. A further increase in sheep numbers took place in 1975 for the same reasons. Mutton and lamb are traditionally Syria's main meats. About 60 percent of the feed requirements for sheep are obtained from grazing of the steppe (semiarid rangeland that receives less than 200 millimeters of annual rainfall) and other rangelands. Range conditions and the availability of feed from stubble and fallow fields are greatly affected by the yearly fluctuations in precipitation.

The Syrian Government has underway a very ambitious program to assure adequate feed for the national sheep flock during droughts which occur about once every 5 years. The most recent occurrence was during the winter of 1972/73. Lambing percentages vary from 40 percent in a drought year to as high as 90 percent in a favorable year. Adult ewe mortality varies from 20 to 4 percent and lamb mortality from 20 to 5 percent. About 3.5 to 4 million sheep are nomadic and seminomadic, that is, tended by Bedouins who have no permanent dwelling place. The Government program encourages sheep production and fattening cooperatives, the construction of feed warehouses, the creation of a national feed reserve, the existence of a national feed revolving fund (NFRF), and the introduction of fodder crops on fallow lands. At present there are 22

fattening cooperatives and 16 sheep production cooperatives.

Official figures for 1974 indicate that dairy cows increased in number to 524,000 head, of which 215,000 are milking, up 14 percent from 1973. A further increase probably took place in 1975, in part reflecting official assistance to dairying in the public and private sectors. With a total cattle population estimated at about 550,000 head, only 40,000 to 50,000 are high or medium-high producing dairy cattle.

The Government plans to develop dairying by constructing dairy farms on a turnkey basis. The most advanced project is with the Canadian company Canexpo Marketing, Ltd., calling for installation of 13 State dairy farms at a total cost of about \$29 million. Ten of the farms are to be built in the Ghab with a total capacity of 6,000 Holstein cows from North America. The Canexpo contract also calls for building two farms for raising replacement heifers and a veal fattening farm to handle 3,000 calves yearly. Three other dairy farms each with a 600-cow capacity are to be built at Tartous, Homs, and Haskeh, an AI center at Damascus, and a 200-head quarantine facility at Tartous. The first shipment of about 500 bred Holstein heifers was imported from the United States during September 1975 for the Canexpo project which is being financed by the Arab Fund for Economic and Social Development.

Another contract for 10 dairy farms is in the course of negotiation to be financed and built by Romania. The contract will also include two heifer replacement farms for 2,500 head each and one calf fattening farm for 2,500 head yearly. A livestock center at Aleppo is also part of the project.

Cow milk production, estimated at 500,00 tons in 1974, increased 27 percent from 1973. It will be little affected by the new State farms for several years. A greater immediate impact is expected from the private sector.

Some 10 dairy cooperatives have been established and several more are under study. The Government plans to organize a total of 120 dairy cooperatives. In 1974, the eight State dairy farms had a total of 3,568 cows in lactation that produced 5,919 tons of milk.

In May 1975, the General Organization for Cattle announced an international tender for offers to build three 600-cow State farms on a turnkey basis. The tender calls for completion within 500 days of signing of the contract. Although the tender deadline was June 21, 1975, no signed contracts had been announced by the end of 1975.

Syria's poultry flock consisted of 5.4 million chickens in 1974, up some 17 percent from a year

earlier. Egg production increased 9 percent, and 1974 output was placed at 405 million eggs. The 1975 production was estimated at about 512 million eggs and 15,474 tons of poultry meat, indicating a per capita share of 70 eggs and 2 kilograms of poultry meat annually.

Syria's shell egg imports in 1974 totaled 5,019 tons compared with nearly 4,600 tons in 1973. The Ministry of Agriculture has signed contracts with at least five foreign firms calling for construction of about ten large State poultry farms designed to produce 195 million eggs yearly and 22 million broilers. These, plus two other very large projects, are expected to be operational by the end of 1977. They could double Syria's egg production. Feed requirements will increase concurrently.

The decision of the 6th Congress of the Baath Party concerning self-sufficiency in production of animal products by the end of 1980 recommends a production goal of 1.5 billion eggs and 160,00 tons of meat, of which 72,000 tons is poultry. Thus, per capita consumption could be increased to 175 eggs and 8.4 kilograms of poultry meat annually.

### Foreign Trade

Syria has been forced to increase imports of agricultural products to meet the country's expanding food requirements. The 1974 import bill for these items totaled nearly S.L. 1.3 billion (\$345 million), and it was more than double 1973's level. Syria has traditionally imported dairy products, eggs, animal fats, and meat, but the increasing prices and quantities of such basic food items as sugar, rice, flour, and wheat were responsible for the sharp increase in 1974.

The total value of Syrian imports during 1974 reached \$1.2 billion, nearly double 1973 imports. The share of agricultural items was 28 percent.

The value of Syria's exports in 1974 amounted to nearly \$790 million, of which 32 percent by value were agricultural items. Cotton, traditionally Syria's main export item, lost out to crude oil. Oil accounted for 55 percent of all export earnings in 1974.

Syria's agricultural imports in 1974 consisted mainly of sugar, rice, flour, wheat, butter oil, canned meat, tea, tobacco leaf, and oranges. In addition to cotton, which accounted for 78 percent of the agricultural exports, other important export items were wool, hides and skins, tobacco leaf, live goats, and lentils.

Exports of U.S. agricultural products to Syria increased substantially in 1975 to a value of almost \$45 million and were 15 times the value of 1974 exports. About half of this value is for U.S. rice and wheat financed under P.L. 480,

Title I. Major commercial sales include tobacco leaf and wheat. U.S. imports of Syrian agricultural products at a value of \$2.1 million was slightly up from 1974. Oriental tobacco accounted for 84 percent of these U.S. imports, and wool accounted for practically all of the rest.

The outlook for maintaining this higher rate of purchases of U.S. agricultural products appears very promising, particularly for those products needed for Syria's expanding poultry and dairy sectors. Such items as corn, soybean meal, and other feed ingredients will probably be the products of most interest to U.S. exporters. The Syrian market for forage and vegetable seed also appears to be attractive to the U.S. suppliers.

Since Syria's agricultural exports are dominated by cotton, major destinations are the large cotton customers such as the Soviet Union, China (PRC), Czechoslovakia, Italy, Yugoslavia, North Korea, Poland, and Iraq. The major destinations of agricultural exports in 1974, excluding cotton and wool, were Jordan, Lebanon, and Egypt.

### Outlook

The outlook for Syrian agriculture in 1976 typically depends upon the rains. They were light last October and November, but generally ample in December and January. After grains, Syria's most important cash crop is cotton. But the outlook for irrigated cotton in 1976 is for slightly less than production in 1975. Competition for the available irrigated land is strong. Cotton acreage is losing out near urban areas to vegetables and to high-yielding varieties of wheat in distant areas where labor and capital are short in supply. Animal production is gradually improving because of additional investments in poultry and dairy facilities. The expansion in commercial sheep fattening by using supplementary feeds should tend to even out some of the annual fluctuations in mutton production.

The longer term outlook for Syrian agriculture continues very promising because of increasing local requirements and the heavy public investment in the infrastructure serving agriculture.

It is doubtful that Syrian grain and protein meal production can keep ahead of the domestic requirements for these commodities. Thus, local prices should rise and import requirements increase to supplement domestically produced supplies.

Syria's demand for food has grown more rapidly in recent years than has its agricultural output or population growth. The estimated population in mid-1975 was 7.3 million. The annual growth rate is more than 3 percent. (*H. Charles Treacle*)



## TURKEY

In 1975, Turkey experienced an all-time record agricultural production year. Wheat production was a record; other grains were excellent. The sugarbeet crop was a record.

Overall agricultural production grew at an estimated 8.5 percent rate, far above the planned target of 3.8 percent. This helped the Turkish economy attain an estimated real gross national product growth of 7.9 percent, just a tenth of a percent below the planned 8 percent rate projected annually for the current 5-year development plan.

### Agricultural Production

*Wheat.*—The largest grain crop produced in Turkey is wheat, and estimated production totaled about 11.5 million tons in 1975, 38 percent greater than in 1974. This was the largest crop on record and exceeded the 1970-74 average production by 28 percent. The significant increase in production was mainly caused by the ideal weather conditions during the critical growing months of April-May.

In the coastal regions high-yielding varieties of wheat are raised, and they make up about 10 percent of the total wheat area. Approximately 25 to 30 percent of Turkey's wheat area is now planted to high-yielding varieties, and all of Turkey's wheat area is now planted to some type of improved variety. Wheat yields in the Cukurova area, one of the main HYV regions, is now about 45 bushels per acre. The average for the country was about 21 bushels per acre in 1975.

Production of the four major feed grain crops totaled 6.6 million tons, up 21 percent over 1974. The major increase was in barley output, up 20 percent. The record barley production surpassed the previous high of 4.2 million tons in 1974. Average production over the last 5 years has been 3.5 million tons, only 8 percent over the 1961-65 average. Corn production, the second ranking feed grain, was estimated at 1.2 million tons, about the same as last year. Corn production has crept up slowly over the last 10 years.

*Cotton.*—Output in 1975 was sharply lower at 480,000 tons, a 20 percent decline. Also, area planted was down 20 percent. Record carryover stocks influenced the smaller acreage. A white fly infestation in the main cotton areas helped reduce production. In some areas, the white fly caused a yield reduction of as much as 50 percent.

In 1974/75, total cotton exports were only 127,000 tons, about a half of the usual exports. So, domestic stocks at the end of that marketing

period were 340,000 tons. Sales since then have increased, and are expected to reach 400,000 tons in the 1975/76 marketing year. Domestic consumption of cotton is increasing, almost meeting the planned 300,000 tons.

*Tobacco.*—1975 production is estimated at 208,600 tons, exceeding 1974's record by 5.2 percent. Tobacco area planted in 1975 is estimated at 988,400 acres, up 6 percent from 1974.

In the 1974/75 marketing year, tobacco exports were 60,645 tons and valued at \$158 million; average price was \$2.60 per kilo. This compares to exports of 112,356 tons in 1973/74, but the average price per kilo was \$1.68. Tobacco is the second most important export following cotton.

*Fats and Oils.*—Estimates place Turkey's 1975/76 edible oil production at 355,000 tons, 13 percent below 1974/75. Olive oil and seed oil stocks held by producers and refiners have not increased the total 1975/76 supply to a level adequate to meet domestic demand. Sunflowerseed is the major source of vegetable oil in Turkey. But production has been declining since it peaked in 1972 and 1973 at 560,000 tons, producing 207,000 tons of oil. Lower prices for vegetable oils in international markets and the Government's decision to liberalize oil imports resulted in the closing of many small sunflowerseed crushers in Thrace. This has had a negative impact on producers, and sunflower acreage planted there has continued to decrease. Turkey will import approximately 80,000 tons of oil in 1975/76. Total 1975/76 edible oil consumption is estimated at 400,000 tons.

*Sugar.*—Sugarbeet production achieved a record of 7.4 million tons in 1975 with an output of 1 million tons of raw sugar. This is sufficient to meet domestic requirements. In the past Turkey has had to import sugar to meet its requirements. Consumption is increasing at about 8 percent annually.

*Fruits and Nuts.*—The 1975 filbert production is estimated at a record 330,000 tons (unshelled), up 37 percent over 1974. Total exports during the current marketing year will not exceed the level of the previous year of 220,000 tons. At present rates of shipment, exports are expected to total about 180,000 tons.

The Government policy continues to help producers by means of support prices and also by promoting exports through incentive measures.

Production of major fruits—apples, pears, quinces, apricots, cherries, and peaches—increased slightly or remained the same. Production of oranges remained the same. Lemon output declined slightly.



**Livestock.**—Production of red meat increased by 11 percent in 1975 after a 17 percent increase in 1974. Turkey's livestock and meat producers had a good year in 1975. Total number of animals, number slaughtered, meat produced, and prices all continued to increase. Red meat production for 1975 is an estimated 621,420 tons, up 11 percent from 1974. The increase came mostly from a 20-percent increase in production from cattle, calves, and buffaloes.

Livestock exports during 1975 showed significant decline. The most important reduction was in cattle and horse exports. Turkey imported a significant amount of dairy cattle which were placed on State farms and on sugar factory farms. Imports were from West Germany, Denmark, the Netherlands, and the United States. Turkish per capita meat consumption is estimated to be increasing at about 2.5 percent annually. Average annual consumption is now about 30 pounds.

### Agricultural Policy

Prices of almost all agricultural crops that are under the Government support program were announced by August. With the exception of sunflowerseed, prices were either unchanged or increased slightly. The price of sunflowerseed was increased substantially. The difficulties experienced in marketing of agricultural commodities in 1974 because of the high support prices caused the Government to be conservative in its pricing policy in 1975.

To minimize producer reaction to unchanged support prices, the Government reduced fertilizer prices by about 33 percent before the support prices were announced. The prices of Government-supplied wheat and barley seed were also reduced. Although supporting farmers, the Turkish Government also controlled price levels for industrial products for protection of consumers (in Turkey, industrial products include margarines and liquid vegetable oils), and it relieved supply shortages by increasing imports of foodstuffs that were short in supply and by increasing industrial and agricultural inputs.

Because domestic support prices remained higher than world export prices, in 1975 the Turkish Government had to grant export subsidies. Consequently, a 10 percent export premium was placed on 1975 filberts. In addition, cotton exports received a 15 percent premium. Such export incentives ranged from 20 to 35 percent for canned fruits and vegetables. And incentives of 10 to 20 percent were provided for fresh fruits and vegetables. Together with those export subsidies, the downward revision of exchange rates increased the competitiveness of the Turkish products.

### Foreign Trade

Preliminary figures place the value of Turkish exports in 1975 at \$1.4 billion, a decrease of 8.9 percent from the record \$1.5 billion in 1974. The leading export item was cotton that was worth \$220 million, down 10 percent from 1974. Second was tobacco, valued at \$170 million, down 17 percent from 1974. Filbert exports worth \$160 million were down almost 8 percent from 1974. The value of the total agricultural exports for 1975 is estimated at \$810 million, a decline of almost 9 percent from 1974. Agricultural products continue to make up most (58 percent) of the exports. The major recipient of Turkish agricultural products was still the European Community. The United States is the major importer of Turkish tobacco.

In 1975, total imports were estimated at \$4.8 billion, up 27 percent over 1974. Agricultural imports totaled \$215 million, down 40 percent. The sharp decline was caused mainly by an excellent wheat harvest which reduced wheat imports from a value of \$239 million in 1974 to \$90 million in 1975. The other large import item is sugar. Its value was \$63 million and \$40 million in 1974 and 1975, respectively. Agriculture's share of total imports continues to be small, although it reached 9 percent in 1974 and 5 percent in 1975.

The Turkish balance of payments continues to deteriorate as a result of continuing growth in import expenditures, declining export revenues, and a continuing decline in remittances from Turkish workers in Europe. Tentative figures for 1975 indicate a trade deficit of \$3.3 billion, compared with \$2.2 billion in 1974 and \$769 million in 1973.

U.S. agricultural exports to Turkey in 1975 decreased by 21 percent from 1974 to a total of \$79.6 million. Wheat exports declined from 505,000 tons in 1974 to 330,000 tons in 1975; their value was \$91.2 million in 1975 and \$59.5 million in 1974. U.S. exports of tallow totaled 10,605 tons valued at \$4 million, compared with 1974's 4,633 tons at \$2.4 million. A shorter sunflowerseed crop caused Turkey to import 14,564 tons of U.S. sunflowerseed worth \$3.9 million. Other U.S. shipments included 5,000 tons of soybean oil worth \$4.4 million, and 4,000 tons of raw sugar valued at \$3.3 million.

### Outlook

Wheat plantings have been increased because of better weather and some switching of cotton land into wheat. Excellent growing conditions throughout the winter, coupled with good spring weather, forecast another very good wheat crop



for 1976. With this good crop, plus large carry-over stocks, Turkey will not need to import any wheat in 1976; it will have about 1 million tons available for export. With no wheat exports to Turkey, the U.S. farm exports to that country will be limited.

Turkey's cotton acreage is expected to drop by 10 percent in 1976. The value and volume of Turkish agricultural exports will be greater in 1976 than in 1975. Most of the cotton and tobacco that was registered for export in 1975 will actually be shipped in 1976. (*Michael E. Kurtzig*)

## UNITED ARAB EMIRATES

Seven emirates joined together in 1971 to form the United Arab Emirates. Three of these now have petroleum income—Abu Dhabi, Dubai, and Sharjah. The other four emirates still rely heavily on agriculture and fishing for their income, although the tremendous wealth of Abu Dhabi is providing many new benefits for them.

New investments in irrigation have bolstered vegetable output in Ras al Khaimah, the leading agricultural emirate. Date production has increased in Buraimi and Al Ain as farmers have taken advantage of fertilizer subsidies. Great contrast exists in agriculture in UAE—ranging from the modern greenhouses for vegetable production on Sadiyah Island to subsistence farms in Fujarah.

Petroleum output in Abu Dhabi continued upward in 1975, reaching a level that was a fourth of Saudi Arabia's output. Total UAE exports increased from \$2.1 billion in 1973 to about \$8 billion in 1975.

About 25,000 Americans and Europeans now live in Abu Dhabi and Dubai. Jobs in the petroleum industry and technical services provide high incomes. Immigrants from India, Pakistan, and Egypt account for over half of the estimated UAE population of 400,000 in January 1976.

### Agricultural Production

Output of dates, figs, tomatoes, and various vegetables is increasing because of strong urban demand and elaborate Government subsidies for farmers. Yet, less than 1 percent of the 77,500 square miles of UAE is used for crops. Most of the land is a desert area, and the density of shrubs and grass tends to diminish from the Gulf of Oman westward to Abu Dhabi. New irrigation projects are underway in Sharjah, Ras al Khaimah, and Al Ain.

Ras al Khaimah accounts for over half of the output of fruits and vegetables. Estimates for UAE crop production in 1975 place output of dates at 33,000 tons; tomatoes, 31,000 tons; melons, 27,000 tons; marrow and cucumbers, 25,000 tons; alfalfa, 18,000 tons; and tobacco, 9,000 tons. Figs grow wild on the slopes of the mountain

range which separates the farm areas on the Batinah Coast of Ras al Khaimah to the east and the areas of scattered oases to the west, particularly Buraimi and Sharjah. Small dams have been built to trap water from some intermittent streams flowing from mountains in Oman. Government projects have paid for the construction of these dams and provided free tractors for use by many small farmers.

Government subsidies provide payments for half of the cost of fertilizer, seed, and animal feed. A new dairy was recently established in Ras al Khaimah with 39 cows and 1 bull.

### Foreign Trade

The UAE is one of the world's fastest growing food importers. Total imports by the UAE increased from \$844 million in 1973 to \$1.6 billion in 1974. The estimate for total imports in 1975 is approximately \$3 billion. Agricultural imports increased from \$93 million in 1973 to \$244 million in 1974. Despite lower prices for rice, vegetable oils, and dairy products, the value of food imports surpassed \$300 million in 1975. Food imports from Australia, Pakistan, Thailand, France, and India increased markedly.

U.S. agricultural exports to UAE increased from \$6.1 million in 1974 to almost \$10 million in 1975. Larger sales of processed foods, wheat flour, and beverage ingredients accounted for most of the gains as rice declined.

Total rice imports by UAE increased from 89,000 tons in 1974 to about 105,000 tons in 1975, mostly because of larger deliveries by Pakistan. Imports of wheat and wheat flour from Australia increased. Most of the cereals and processed foods enter UAE through the busy ports of Dubai and Abu Dhabi. As arrivals of Lebanese fresh fruits and vegetables declined in 1975, larger deliveries were made by Australia and India. Wheat will be imported for new flour mills at Dubai and Abu Dhabi.

### Outlook

The Government of UAE plans to invest heavily in new storage facilities for cereals and meat.

New roads and cold storage facilities have improved marketing opportunities for farmers and the efficiency of distributing imported food.

Per capita income in the UAE exceeds \$10,000. Further expansion in grocery marketing facilities will boost the demand for imported food. Striking gains in sales of Danish and Dutch frozen poul-

try and dairy products are likely to continue in 1976. Excellent opportunities exist for larger sales of U.S. wheat, fruit juices, frozen poultry, peanut butter, onions, and pulses. Technology supplied by U.S. firms could boost output of irrigated plots in Ras al Khaimah and Sharjah. (*John B. Parker*)

## YEMEN ARAB REPUBLIC

(Yemen, San'a)

Agriculture is the basis of the economy of the Yemen Arab Republic. It accounts for about 70 percent of the gross domestic product (GDP) and for more than 90 percent of the country's exports. Approximately 90 percent of the cultivable land depends on seasonal rainfall which occurs in the spring and again late in summer and fall, but it is distributed unevenly. Agriculture on the semi-arid Tihama plain is almost entirely irrigated, because even in years of the best rainfall, the moisture is not sufficient for crops. Because of the fluctuations in seasonal rainfall, crop production varies considerably from year to year. In 1975 more favorable weather, various development activities, and an on-going census all helped to provide a certain momentum to production.

Yemen's first development plan started on schedule early in 1974, and a second plan was drafted by the Central Planning Organization. In the latest development plan, extended through 1976, emphasis has been placed on agriculture, communications, and education.

### Agricultural Production

With seasonal rains the best in a decade, the Yemen Arab Republic's agriculture responded in 1975 with a good outturn. Drought slowed agricultural production from 1970 through 1973 but it was revived by the good rains in 1974 and 1975. Continued good rains for several years are needed to replenish the reportedly falling groundwater level in several areas of the country. Table 4 compares 1974 harvests with the 1975 preliminary figures for Yemen's major crops.

The improvement in grazing brought by the good rains in 1974 and 1975 suggests an improvement in livestock numbers. Yemen has an estimated 8 million goats, 2 million sheep, 1.3 million cattle, and 100,000 camels. A dairy project may be started with foreign assistance in 1976, but overall expansion of livestock production awaits improvements in the quantity and quality of animal feed.

Table 4--Agricultural production in the Yemen Arab Republic

Commodity	Production in--	
	1974	1975 (estimates)
	1,000 tons	
Millet and sorghum...	722	1,570
Corn.....	84	107
Barley.....	229	220
Sesame.....	3	4
Pulses.....	64	84
Wheat.....	10	16
Potatoes.....	64	78
Vegetables.....	150	160
Fruit.....	60	60
Grapes.....	31	40
Coffee.....	422	600
Cotton.....	7	8
Cottonseed.....	20	26

The largest production increases for crops in 1975 were reported for corn, sorghum, vegetables, and grapes. Foodgrains—sorghum, millet, barley, and wheat—are grown for local consumption, and sufficient quantities were available for these cereals to be traded and for rice to be purchased. This helped to improve and vary the diets of the people. Cash crops include cotton, coffee, and qat. Qat (*Catha edulis*) leaves are chewed or used as tea and are mildly narcotic. Qat is an important local cash crop that has replaced coffee trees in some areas. Although coffee production has declined over the past several years from 2,054 tons in 1972 to the recent low quantities, there is a continued world demand for Yemen's Arabica coffee. Trees have been replanted in areas where as much as 30 percent of the trees were destroyed



by floods in 1974. The value of coffee exports in 1975 is estimated at about \$1 million.

Cotton and cottonseed have become Yemen's leading export items, and they accounted for over a third of all exports in 1975. Much of the cotton is used by domestic textile factories, and with the extension of ginning and spinning facilities, more cotton may be used domestically.

### Foreign Trade

Yemen is short on exportable products, and their value equals only about 7 percent of the value of imports. Total imports amounted to \$214.7 million in fiscal year 1975, well up from 1974. The resulting deficit was greatly lessened by significant foreign exchange remittances returned by Yemenis working abroad.

Yemen's exports are almost totally agricultural. The leading items are cotton which makes up 43 percent of these exports, coffee (21 percent), hides and skins (13 percent), and cottonseed (8 percent). Lesser amounts of live animals, potatoes, fresh fruit, and qat are exported.

During 1975 the United States exported agricultural products worth \$4.1 million to the Yemen Arab Republic. These included wheat, rice, and soy flour. With improved conditions aided by the opening of the Suez Canal, more foodgrains, especially rice, and some feed grains may be imported to supply the growing demand.

In 1975 the United States imported from Yemen hides, skins, and coffee worth \$148,000.

### Outlook

The Government backs planned development and there is a degree of momentum in the economy, supported by a strong foreign exchange posture. The economy is annually renewed by remittances from abroad. A slightly expanding market appears to be a possibility. This strategically-located agrarian country has almost half of the population of the Arabian Peninsula. Its industrial sector is in its infancy and development investments in trade are almost certain to grow along with improvements in agriculture. (H. Charles Treagle)

## YEMEN, PEOPLES DEMOCRATIC REPUBLIC

(Yemen, Aden)

Agriculture provided about 20 percent of the gross national product (GNP), and it contributes about 12 percent of the country's foreign exchange. A large percentage of the crops and livestock products produced are used domestically with only a modest marketable surplus.

The demand for most major food items—wheat, rice, sugar, meat, milk, and eggs—exceeds the domestic production. Imported foodstuffs make up about a third of total imports.

Between 90,000 and 100,000 hectares of the land are cultivated. Almost all production depends on flood or karez irrigation. Sorghum, millet, and wheat are planted on about two-thirds of the cropland. About 13 to 15 percent is used for cotton.

Table 5 lists the production of principal crops for 1973 and 1974, as released in a statement to a political unification conference reported by "Al Thawri" on November 22, 1975, with preliminary estimates for 1975 production.

Livestock holdings are modest but are important in the agricultural sector. Goats are more numerous, estimated at between 900,000 and 1 million; sheep, about 225,000; cattle, about 100,000; camels, 40,000; and poultry and bees are of minor importance. The value of livestock prod-

Table 5--Agricultural production in Yemen, Peoples Democratic Republic

Commodity	Production in--		
	1973	1974	1975 (Estimates)
	1,000 tons		
Wheat.....	16.8	17.7	17.0
Barley.....	2.0	2.0	2.0
Millet and sorghum.....	69.4	70.3	71.5
Sesame.....	3.5	3.5	3.5
Vegetables.....	51.7	75.0	77.0
Fruit.....	52.0	62.0	60.0
Fodder (mainly alfalfa).....	244.0	264.0	265.0
Coffee.....	.8	.8	.8
Cotton.....	11.7	15.0	16.0
Tobacco.....	1.4	1.4	1.5

ucts was estimated at about 9.6 million Yemeni dinars in 1974 (\$3.3 million). Livestock and livestock products have been increasing in importance in recent years because of the Government's efforts to have more land area planted with fodder and by importing 500 head of highly productive breeds.

The Five Year Plan (1974-79) allocates 40 percent of development expenditures to agriculture and 20 percent to roads. Roads are important in converting economically isolated regions into an integrated national market.

#### Foreign Trade

The Peoples Democratic Republic of Yemen is not a large international trader, and the value of its imports depend considerably on drought conditions and on the level of its agricultural output. In 1974, the value of imports amounted to about \$188 million, and exports were valued at about \$26 million. Most of the exports were agricultural products. The leading items were cotton, hides, skins, and dried and salted fish. The export figure does not include refined petroleum products, because crude oil is imported and then refined and reexported.

In 1974, imports worth \$8.6 million were purchased from the United States. Most of the imports were wheat. But better crops in 1975 slowed sales of foodstuffs, and U.S. sales dropped to \$253,000 of rice, food preparations, and seeds. The United States balanced this by purchasing some \$266,000 of hides, skins, and coffee.

#### Outlook

The country's agricultural outlook is somewhat limited by the availability of cultivable land and the water resources needed for agriculture to flourish. Emphasis has been shifted to quick-yielding investments in agriculture as well as to fishing and small agri-related industries. Improvements have been made by development expenditures and because of advantages brought by the reopening of the Suez Canal.

Shipping through the Aden Port should rapidly increase, and greater earnings should result from the servicing of more ships. In anticipation of a greater flow of shipping, the Port of Aden has hired two international consulting companies to survey the port and to prepare plans for developing it in 5-year intervals for the next 15 years. *(H. Charles Treacle)*



# APPENDIX TABLES

Table 1--West Asia and Africa: Indices of agricultural production, total and per capita, by country, 1971-75

(1961-65 = 100)

Region and country	Total					Per capita				
	1971	1972	1973	1974	1975 <sup>1/</sup>	1971	1972	1973	1974	1975 <sup>1/</sup>
West Asia:										
Cyprus.....	163	156	121	155	128	150	141	108	137	112
Iran.....	119	136	145	146	167	94	104	107	105	116
Iraq.....	103	150	112	121	116	80	112	81	85	79
Israel.....	156	170	179	189	177	122	129	131	134	122
Jordan.....	107	134	66	166	84	82	100	48	116	57
Lebanon.....	152	159	150	176	153	121	123	112	128	108
Syria.....	83	127	73	124	123	64	95	53	87	83
Turkey.....	137	136	125	136	148	113	109	98	104	110
Total West Asia.....	129	139	129	140	149	103	108	97	103	106
Africa:										
Algeria.....	98	114	86	96	93	77	87	63	68	64
Angola.....	113	114	114	111	69	98	97	95	90	55
Benin (Dahomey).....	109	113	121	129	132	90	91	95	99	99
Burundi.....	131	130	129	108	127	110	107	104	85	98
Cameroon.....	121	120	119	129	128	102	99	97	103	100
Egypt.....	117	119	119	118	121	97	97	95	92	93
Ethiopia.....	119	112	109	113	103	100	92	87	88	78
Ghana.....	116	109	115	120	126	92	83	86	87	88
Guinea.....	124	126	127	127	129	105	104	103	100	100
Ivory Coast.....	149	151	146	168	176	119	118	111	124	126
Kenya.....	123	139	145	148	149	95	104	105	104	101
Liberia.....	131	141	149	157	146	105	110	112	114	103
Libya.....	121	177	188	199	223	93	132	136	140	152
Malagasy Republic.....	126	129	122	135	137	106	106	98	106	105
Malawi.....	148	160	151	161	175	122	129	118	123	130
Mali.....	105	91	86	97	97	87	74	68	75	73
Morocco.....	143	144	119	146	118	111	108	87	103	80
Niger.....	112	95	71	97	91	89	73	53	71	64
Nigeria.....	114	119	113	120	124	94	96	89	92	93
Rhodesia.....	101	113	91	124	124	77	83	65	85	83
Rwanda.....	149	145	152	136	149	119	112	115	99	106
Senegal.....	112	79	95	121	138	95	65	76	95	106
Sierra Leone.....	117	118	117	120	128	99	98	95	95	99
South Africa, Rep. of.....	136	142	119	148	140	107	109	89	107	99
Sudan.....	140	136	131	139	139	112	105	98	101	98
Tanzania.....	123	126	124	113	122	100	100	95	85	89
Togo.....	123	124	117	124	128	98	96	88	91	91
Tunisia.....	145	152	154	187	215	119	122	121	144	162
Uganda.....	126	127	116	109	105	103	101	89	82	77
Upper Volta.....	88	86	84	102	100	74	71	68	81	78
Zaire.....	133	134	140	144	142	111	109	112	112	108
Zambia.....	125	175	135	161	155	99	135	101	117	110
Total Africa.....	122	125	118	128	127	100	99	91	97	93

<sup>1/</sup> Based on preliminary data.

Table 2 --West Asia and Africa: Indices of food production, total and per capita, by country, 1971-75

(1961-65 = 100)

Region and country	Total					Per capita				
	1971	1972	1973	1974	1975 <u>1/</u>	1971	1972	1973	1974	1975 <u>1/</u>
West Asia:										
Cyprus.....	165	158	123	157	129	152	143	110	139	113
Iran.....	118	134	143	144	168	93	102	106	103	117
Iraq.....	102	150	112	121	116	79	112	81	85	79
Israel.....	152	166	177	183	172	119	126	130	130	118
Jordan.....	107	134	66	166	84	82	100	48	116	57
Lebanon.....	150	153	143	171	146	120	119	107	124	103
Syria.....	76	138	62	138	133	58	103	45	96	90
Turkey.....	134	132	122	131	146	110	106	95	100	109
Total West Asia.....	127	137	127	137	149	101	106	96	100	106
Africa:										
Algeria.....	98	115	87	96	93	77	88	64	68	64
Angola.....	108	102	113	107	84	94	87	94	87	67
Benin (Dahomey).....	109	113	121	129	132	90	91	95	99	99
Burundi.....	129	130	129	104	128	109	107	104	82	98
Cameroon.....	118	114	112	120	121	100	94	91	95	94
Egypt.....	119	122	123	126	132	99	99	98	98	101
Ethiopia.....	118	111	109	112	101	99	91	87	87	77
Ghana.....	116	109	115	120	126	92	83	86	87	88
Guinea.....	128	129	132	132	135	108	107	107	104	104
Ivory Coast.....	149	147	156	174	186	119	115	118	128	133
Kenya.....	117	130	132	136	142	90	97	95	95	96
Liberia.....	106	109	122	129	127	85	85	92	94	89
Libya.....	122	178	190	201	225	94	133	138	141	153
Malagasy Republic.....	128	130	122	131	136	108	107	98	103	104
Malawi.....	145	157	133	154	159	120	126	104	118	118
Mali.....	96	81	75	87	86	80	66	60	67	65
Morocco.....	145	144	118	147	118	113	108	86	103	80
Niger.....	111	94	70	97	90	88	73	52	71	64
Nigeria.....	114	119	113	120	124	94	96	89	92	93
Rhodesia.....	122	139	108	148	138	93	103	77	102	92
Rwanda.....	149	145	152	136	149	119	112	115	99	106
Senegal.....	110	76	91	116	133	93	63	73	91	102
Sierra Leone.....	118	117	118	120	128	100	97	96	95	99
South Africa, Rep. of..	143	150	125	157	147	113	115	93	114	104
Sudan.....	137	130	123	142	148	109	100	92	103	104
Tanzania.....	126	130	127	115	130	102	103	98	86	95
Togo.....	125	127	120	127	131	100	98	91	93	94
Tunisia.....	145	152	155	188	217	119	122	122	145	163
Uganda.....	124	122	113	113	107	101	97	87	85	78
Upper Volta.....	84	82	79	98	95	71	68	64	78	74
Zaire.....	133	132	139	147	146	111	108	111	115	111
Zambia.....	138	203	151	185	177	110	157	113	135	125
Total Africa.....	123	125	118	129	129	100	99	91	97	95

1/ Based on preliminary data.











Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-75--Continued

[illegible]

Continued





Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-75--Continued

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts, in shell	Cotton- seed	To- bac- co	Cof- fee 3/	Cocoa beans 3/	Cotton
1,000 metric tons															
Nigeria															
Average:															
1961-65.....	--	1,034	6,287	356	9,656	12,923	--	1,603	3	1,419	90	13	2	215	45
1971.....	1	2	850	27	200	--	--	--	--	260	6	--	--	--	3
1972.....	1	1	710	32	200	--	--	--	--	195	6	--	--	--	3
1973.....	1	1	525	46	200	--	--	--	--	75	6	--	--	--	3
1974.....	1	2	737	43	200	--	--	--	--	186	6	--	--	--	3
1975.....	1	2	880	35	200	--	--	--	--	25	6	--	--	--	3
Rhodesia															
Average:															
1961-65.....	2	833	268	--	43	22	--	--	133	123	6	105	--	--	3
1971.....	82	1,179	270	--	47	23	--	--	185	108	110	60	--	--	50
1972.....	85	1,540	270	--	49	24	--	--	195	125	100	65	--	--	48
1973.....	70	635	225	--	45	25	--	--	200	110	70	57	--	--	35
1974.....	93	1,700	270	--	50	26	--	--	200	120	86	80	--	--	43
1975.....	85	1,400	270	--	48	25	--	--	200	120	80	94	--	--	40
Rwanda															
Average:															
1961-65.....	2	47	136	--	132	456	--	1,115	--	8	--	--	9	--	--
1971.....	1	56	142	--	372	547	--	1,679	--	8	--	--	16	--	--
1972.....	2	50	146	--	350	546	--	1,681	--	8	--	--	11	--	--
1973.....	2	55	145	--	364	565	--	1,767	--	8	--	--	16	--	--
1974.....	2	35	123	--	360	360	--	1,648	--	8	--	--	15	--	--
1975.....	2	55	146	--	365	560	--	1,700	--	8	--	--	16	--	--

Continued



Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-75--Continued

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts in shell	Cotton- seed	To- bac- co	Cof- fee 3/	Cocoa beans 3/	Cotton
1,000 metric tons															
<b>Senegal</b>															
Average:															
1961-65.....	--	33	479	102	151	18	2	--	--	1,006	--	--	--	--	--
1971.....	--	39	587	108	270	22	2	--	--	920	13	--	--	--	8
1972.....	--	20	323	37	270	22	2	--	--	610	15	--	--	--	9
1973.....	--	45	511	64	270	22	2	--	--	700	21	--	--	--	12
1974.....	--	42	680	114	270	22	2	--	--	890	25	--	--	--	15
1975.....	--	55	650	146	275	23	2	--	--	1,140	25	--	--	--	15
<b>Sierra Leone</b>															
Average:															
1961-65.....	--	10	27	406	449	55	89	154	--	23	--	--	5	4	--
1971.....	--	11	13	500	505	64	106	178	--	20	--	--	6	6	--
1972.....	--	11	13	479	550	68	110	182	--	20	--	--	8	7	--
1973.....	--	12	13	479	560	70	115	186	--	20	--	--	4	8	--
1974.....	--	14	15	490	570	72	118	190	--	20	--	--	7	6	--
1975.....	--	14	15	540	585	74	121	194	--	20	--	--	6	6	--
<b>South Africa, Republic of</b>															
Average:															
1961-65.....	843	5,491	261	--	--	415	436	43	1,080	221	23	27	--	--	11
1971.....	1,670	8,600	551	--	--	660	524	64	1,865	379	27	32	--	--	14
1972.....	1,746	9,483	510	--	--	679	581	81	1,915	395	32	31	--	--	16
1973.....	1,871	4,211	222	--	--	620	545	76	1,732	195	36	30	--	--	18
1974.....	1,596	11,105	685	--	--	728	596	99	1,883	525	88	29	--	--	44
1975.....	1,780	9,500	548	--	--	758	612	96	1,882	289	66	34	--	--	33
<b>Sudan</b>															
Average:															
1961-65.....	37	28	1,610 •	--	120	4	5	--	16	256	308	--	--	--	157

Continued





Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-75--Continued

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts, in shell	Cotton- seed	To- bac- co	Cof- fee 3/	Cocoa beans 3/	Cotton
1,000 metric tons															
Uganda															
Average:															
1961-65.....	--	302	685	--	1,164	967	--	240	122	182	131	2	154	--	66
1971.....	--	335	962	--	1,250	990	--	300	141	200	152	4	171	--	75
1972.....	--	350	940	--	1,250	1,000	--	300	89	215	162	4	171	--	80
1973.....	--	328	860	--	1,250	900	--	275	55	215	101	3	218	--	50
1974.....	--	350	845	--	1,250	1,000	--	300	27	220	61	2	186	--	30
1975.....	--	350	850	--	1,250	900	--	300	30	215	61	1	180	--	30
Upper Volta															
Average:															
1961-65.....	--	151	927	25	31	47	--	--	--	122	6	--	--	--	3
1971.....	--	66	770	37	32	45	--	--	--	66	26	--	--	--	14
1972.....	--	59	793	30	30	40	--	--	--	60	28	--	--	--	15
1973.....	--	58	734	32	30	40	--	--	--	63	28	--	--	--	15
1974.....	--	85	1,075	40	30	40	--	--	--	65	28	--	--	--	15
1975.....	--	87	1,000	41	31	41	--	--	--	65	29	--	--	--	15
Zaire															
Average:															
1961-65.....	2	238	36	62	6,491	272	--	1,380	35	127	28	--	53	6	15
1971.....	2	409	40	195	8,975	409	--	1,100	45	180	40	--	74	6	20
1972.....	2	433	58	206	8,950	389	--	1,200	50	180	40	--	80	6	21
1973.....	1	477	64	227	9,500	392	--	1,200	57	200	44	--	79	6	23
1974.....	3	524	70	250	10,000	407	--	1,300	62	230	40	--	68	5	18
1975.....	2	468	70	260	10,000	405	--	1,300	64	250	36	--	61	5	18
Zambia															
Average:															
1961-65.....	1	167	--	--	6/145	3	--	--	--	15	1	9	--	--	--

Continued











Table 4--West Asia: Production of principal agricultural products, by country, average 1961-65, annual 1971-75--Continued

Country and year	Wheat	Barley	Corn	Rice, paddy	Pulses: 2/	Grapes:	Citrus fruit	Dates	Cotton	Cotton- seed	To- bac- co	Sugar- beets	Milk	Wool	Meat
Turkey															
Average:															
1961-65.....	7,050	3,220	921	160	578	2,744	352	--	273	448	130	3,403	3,938	43	443
1971.....	10,700	4,170	1,135	269	605	3,453	677	--	523	835	174	5,956	4,280	48	525
1972.....	9,500	3,725	1,030	188	650	3,010	712	--	544	870	178	5,896	4,445	50	461
1973.....	8,000	2,900	1,040	245	581	3,004	676	--	513	821	149	5,095	4,591	52	473
1974.....	8,300	3,330	1,200	231	653	3,006	877	--	600	958	198	5,707	4,672	52	553
1975.....	11,500	4,500	1,100	235	634	3,040	883	--	460	730	209	7,400	4,700	53	569
Total 5/ Average:															
1961-65.....	11,851	5,873	965	1,068	928	3,574	1,426	615	572	1,099	171	4,881	7,499	88	967
1971.....	16,011	5,697	1,195	1,454	978	4,333	2,816	730	879	1,455	227	10,540	8,412	91	1,202
1972.....	18,668	6,391	1,099	1,657	1,084	3,880	2,884	610	972	1,547	232	10,539	8,595	93	1,212
1973.....	14,235	4,412	1,111	1,736	870	3,753	3,094	670	920	1,462	198	9,869	8,787	92	1,406
1974.....	15,730	5,540	1,281	1,358	1,108	3,993	3,266	670	1,040	1,763	243	10,200	9,085	104	1,558
1975.....	19,235	6,556	1,210	1,562	1,046	4,031	3,128	670	830	1,397	253	12,382	9,365	95	1,736

--- = None or negligible.

1/ Data for 1975 are preliminary.

2/ Pulses may include dry beans, broad beans, lentils, chickpeas, cowpeas, dry peas, and vetch.

3/ Oranges and tangerines only.

4/ Oranges, lemons, and grapefruit.

5/ Total of listed countries.

UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C. 20250

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